



# ***STIC Search Report***

***EIC 1700***

**STIC Database Tracking Number: 167255**

**TO: Eisa Elhilo  
Location: REM 9A60  
Art Unit : 1751  
September 30, 2005**

**Case Serial Number: 10/735748**

**From: Kathleen Fuller  
Location: EIC 1700  
REMSSEN 4B28  
Phone: 571/272-2505  
Kathleen.Fuller@uspto.gov**

## **Search Notes**



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

=> FILE REG

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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 29 SEP 2005 HIGHEST RN 864227-43-0  
DICTIONARY FILE UPDATES: 29 SEP 2005 HIGHEST RN 864227-43-0

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TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when  
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\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> FILE HCAPL

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FILE COVERS 1907 - 30 Sep 2005 VOL 143 ISS 15  
FILE LAST UPDATED: 29 Sep 2005 (20050929/ED)

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This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=&gt; D QUE

L75 STR

O $\equiv$ CH- Cy- CH $\equiv$ O  
1 2 3 4 5

*Structure query covers claim 1  
and claim 2 (IV)*

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

*6,789 compounds*

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L77 SCR 1838

L78 SCR 1305

L80 6789 SEA FILE=REGISTRY SSS FUL L75 AND L77 AND L78

L81 12333 SEA FILE=HCAPLUS ABB=ON L80

L83 21 SEA FILE=HCAPLUS ABB=ON L81(L) (HAIR OR KERAT?)

*21 CA references with utility*

=&gt; D L83 BIB ABS IND HITSTR 1-21

L83 ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:863646 HCAPLUS

DN 142:190914

TI Intracerebroventricular injection of phospholipases A2 inhibitors modulates allodynia after facial carrageenan injection in mice

AU Yeo, Jin-Fei; Ong, Wei-Yi; Ling, Su-Fung; Farooqui, Akhlaq A.

CS Department of Oral and Maxillofacial Surgery, National University of Singapore, Singapore, 119260, Singapore

SO Pain (2004), 112(1-2), 148-155

CODEN: PAINDB; ISSN: 0304-3959

PB Elsevier Ltd.

DT Journal

LA English

AB The present study was carried out, using inhibitors to secretory phospholipase A2 (sPLA2, 12-epi-scalarial), cytosolic phospholipase A2 (cPLA2, AACOCF3), or calcium-independent phospholipase A2 (iPLA2, bromoenol lactone), to compare possible contributions of central nervous PLA2 isoforms to the development of allodynia after facial carrageenan injection in mice. C57BL/6J (B6) mice showed increased responses to facial stimulation using a von Frey hair (1 g force), at 8 h, 1 day, and 3 days after facial carrageenan injection. On the other hand, BALB/c mice did not show increased responses at any of the time points. In both B6 and BALB/c mice, intracerebroventricular injection of inhibitors to each of the three PLA2 isoforms significantly reduced responses to von Frey hair stimulation at 8 h and 1 day after facial carrageenan injection, but at 3 days after injection, only the sPLA2 inhibitor had an effect. Since BALB/c mice did not show increased responses after facial carrageenan injection, the reduction in responses actually indicates that there is loss of normal sensitivity to von Frey hair stimulation after intracerebroventricular injection of each of these inhibitors, in this strain of mice. The effects of PLA2 inhibitors are unlikely to be due simply to inhibition of arachidonic acid generation, since intracerebroventricular injection of arachidonic acid also had an anti-nociceptive effect. The above results support an important role of central nervous PLA2s in neurotransmission and pain transmission.

CC 1-11 (Pharmacology)  
ST bromoenol lactone allodynia phospholipase A2 inhibitor analgesic  
IT Pain  
Skin, disease  
(allodynia; intracerebroventricular injection of 12-epi-scalaradial, AACOCF3, BEL reduced response to von Frey hair stimulation at 8 h, 1 day after facial carrageenan in B6, BALB/c mouse, but at 3 days only 12-epi-scalaradial had effect)

IT Analgesics  
(i.c.v. injection of 12-epi-scalaradial, AACOCF3, BEL modulate allodynia after facial carrageenan in B6, BALB/c mouse which were unlikely due to arachidonic acid generation inhibition, as arachidonic acid also had anti-nociceptive effect)

IT 506-32-1, Arachidonic acid  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(i.c.v. injection of 12-epi-scalaradial, AACOCF3, BEL modulate allodynia after facial carrageenan in B6, BALB/c mouse which were unlikely due to arachidonic acid generation inhibition, as arachidonic acid also had anti-nociceptive effect)

IT 9000-07-1, Carrageenan  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(intracerebroventricular injection of 12-epi-scalaradial, AACOCF3, BEL reduced response to von Frey hair stimulation at 8 h, 1 day after facial carrageenan in B6, BALB/c mouse, but at 3 days only 12-epi-scalaradial had effect)

IT 133876-97-8, Cytosolic phospholipase A2  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(intracerebroventricular injection of cPLA2, AACOCF3 reduced response to von Frey hair stimulation at 8 h, 1 day after facial carrageenan in B6, BALB/c mouse, but at 3 days only 12-epi-scalaradial had effect)

IT 149301-79-1, Arachidonyl trifluoromethyl ketone  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(intracerebroventricular injection of cPLA2, AACOCF3 reduced response to von Frey hair stimulation at 8 h, 1 day after facial carrageenan in B6, BALB/c mouse, but at 3 days only 12-epi-scalaradial had effect)

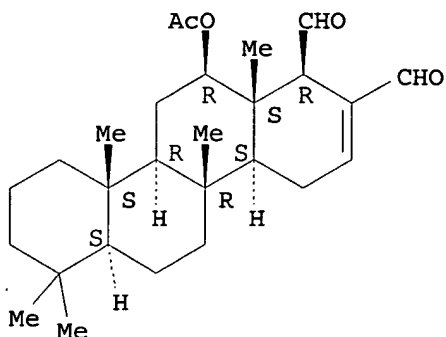
IT 88070-98-8, Bromoenol lactone  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(intracerebroventricular injection of calcium-independent PLA2, bromoenol lactone reduced response to von Frey hair stimulation at 8 h, 1 day after facial carrageenan in B6, BALB/c mouse, but at 3 days only 12-epi-scalaradial had effect)

IT 72300-72-2, 12-epi-Scalaradial  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(intracerebroventricular injection of sPLA2, 12-epi-scalaradial reduced response to von Frey hair stimulation at 8 h, 1 day and 3 days after facial carrageenan in B6, BALB/c mouse)

IT 72300-72-2, 12-epi-Scalaradial  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(intracerebroventricular injection of sPLA2, 12-epi-scalaradial reduced response to von Frey hair stimulation at 8 h, 1 day and 3 days after facial carrageenan in B6, BALB/c mouse)

RN 72300-72-2 HCAPLUS  
CN 1,2-Chrysenedicarboxaldehyde, 12-(acetyloxy)-1,4,4a,4b,5,6,6a,7,8,9,10,10a,10b,11,12,12a-hexadecahydro-4b,7,7,10a,12a-pentamethyl-, (1R,4aS,4bR,6aS,10aS,10bR,12R,12aS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:492301 HCAPLUS  
DN 141:42550  
TI Hair dyeing compositions containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound  
IN Plos, Gregory  
PA L'Oreal, Fr.  
SO Fr. Demande, 27 pp.  
CODEN: FRXXBL  
DT Patent  
LA French

*applicant*

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2848444	A1	20040618	FR 2002-15913	20021216
	FR 2848444	B1	20050128		
	EP 1430878	A1	20040623	EP 2003-293128	20031212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2004196803	A2	20040715	JP 2003-417582	20031216
	US 2004205905	A1	20041021	US 2003-735748	20031216
PRAI	FR 2002-15913	A	20021216		
	US 2003-456180P	P	20030321		
OS	MARPAT 141:42550				
AB	Hair dyeing compns. contain ortho- or $\alpha$ -dialdehyde and one sulfur compound and can be used for the dyeing of human hair. Thus, composition contained o-phthalaldehyde 0.5, cysteamine-2HCl $3 \times 10^{-3}$ mole%, and glycine $10^{-3}$ mole%, NaOH qs, and water qs to 100 g.				
IC	ICM A61K007-13				
CC	62-3 (Essential Oils and Cosmetics)				
ST	hair dyeing dialdehyde sulfur compd				
IT	Surfactants (amphoteric; hair dyeing compns. containing ortho- or $\alpha$ -dialdehyde and one sulfur compound)				
IT	Surfactants (anionic; hair dyeing compns. containing ortho- or $\alpha$ -dialdehyde and one sulfur compound)				
IT	Alcohols, biological studies				
RL:	COS (Cosmetic use); BIOL (Biological study); USES (Uses) (aralkyl; hair dyeing compns. containing ortho- or $\alpha$ -dialdehyde and one sulfur compound)				

- IT Surfactants  
(cationic; hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)
- IT Hair preparations  
(dyes; hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)
- IT Hair  
Human  
Surfactants  
(hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)
- IT Amino acids, biological studies  
Cycloalkanols  
Dialdehydes  
Peptides, biological studies  
Polyoxyalkylenes, biological studies  
Proteins  
Thiols, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)
- IT Surfactants  
(nonionic; hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)
- IT Alcohols, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(polyhydric; hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)
- IT Surfactants  
(zwitterionic; hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)
- IT 51-85-4, Cystamine 52-90-4, Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-81-5, Glycerin, biological studies 56-84-8, Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, Lysine, biological studies 57-55-6, Propylene glycol, biological studies 60-18-4, Tyrosine, biological studies 60-23-1, Cysteamine 61-90-5, Leucine, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 68-11-1, Thioglycolic acid, biological studies 70-26-8, Ornithine 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, Arginine, biological studies 75-08-1, Ethanethiol 100-51-6, Benzyl alcohol, biological studies 107-41-5, Hexylene glycol 110-63-4, Butylene glycol, biological studies 126-30-7, Neopentyl glycol 137-07-5, 2-Aminothiophenol 147-85-3, Proline, biological studies 643-79-8, o-Phthalaldehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde 1320-67-8, Propylene glycol monomethyl ether 7149-49-7, 2,3-Naphthalenedicarboxaldehyde 16904-32-8, Cysteamine dihydrochloride 25322-68-3, Polyethylene glycol 34590-94-8, DiPropylene glycol monomethyl ether 43073-12-7, 4,5-DimethoxyPhthalaldehyde 70848-82-7, Naphthalenedicarboxaldehyde 74057-36-6, 1,2-Naphthalenedicarboxaldehyde 76197-35-8, 2,3-Anthracenedicarboxaldehyde 137818-67-8, Thiophenedicarboxaldehyde 358640-84-3, Anthracenedicarboxaldehyde  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair dyeing compns. containing ortho- or  $\alpha$ -dialdehyde and one sulfur compound)

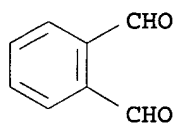
IT 643-79-8, o-Phthalaldehyde 932-41-2,  
2,3-Thiophenedicarboxaldehyde 7149-49-7, 2,3-  
Naphthalenedicarboxaldehyde 43073-12-7, 4,5-  
DimethoxyPhthalaldehyde 74057-36-6, 1,2-  
Naphthalenedicarboxaldehyde 76197-35-8, 2,3-  
Anthracenedicarboxaldehyde

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair dyeing comps. containing ortho- or  $\alpha$ -dialdehyde and  
one sulfur compound)

RN 643-79-8 HCAPLUS

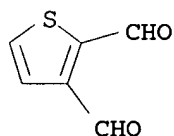
CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)

Claim 2 IV



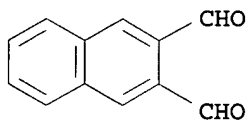
RN 932-41-2 HCAPLUS

CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



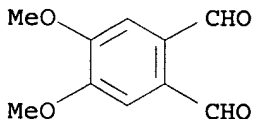
RN 7149-49-7 HCAPLUS

CN 2,3-Naphthalenedicarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 43073-12-7 HCAPLUS

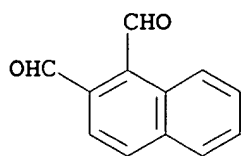
CN 1,2-Benzenedicarboxaldehyde, 4,5-dimethoxy- (9CI) (CA INDEX NAME)



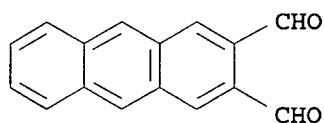
RN 74057-36-6 HCAPLUS

CN 1,2-Naphthalenedicarboxaldehyde (9CI) (CA INDEX NAME)





RN 76197-35-8 HCAPLUS  
 CN 2,3-Anthracenedicarboxaldehyde (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:450587 HCAPLUS  
 DN 141:28203  
 TI Hair dyeing compositions comprising a heterocyclic dialdehyde and a  
 nitrogen compound  
 IN Plos, Gregory  
 PA L'oreal, Fr.  
 SO Fr. Demande, 21 pp.  
 CODEN: FRXXBL

DT Patent  
 LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2847809	A1	20040604	FR 2002-15058	20021129
	EP 1428504	A1	20040616	EP 2003-292898	20031121
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2004182735	A2	20040702	JP 2003-402180	20031201
	US 2004154109	A1	20040812	US 2003-724083	20031201
PRAI	FR 2002-15058	A	20021129		
	US 2002-432981P	P	20021213		
	US 2003-439981P	P	20030114		
OS	MARPAT 141:28203				
AB	Hair dye compns. contain a heterocyclic dialdehyde and at least a nitrogen compound Thus, a composition contained 2,3-thiophenedicarboxaldehyde 6x10 <sup>-3</sup> mole, ammonia 0.8, and water qs to 100 g.				
IC	ICM A61K007-13				
CC	62-3 (Essential Oils and Cosmetics)				
ST	heterocyclic dialdehyde nitrogen compd hair dye				
IT	Alcohols, biological studies				
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)				
	(amino; hair dyeing compns. comprising heterocyclic dialdehyde and)				
IT	Amines, biological studies				
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)				
	(aromatic; hair dyeing compns. comprising heterocyclic dialdehyde and)				
IT	Amines, biological studies				
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)				

(diamines, aromatic; hair dyeing compns. comprising heterocyclic dialdehyde and)

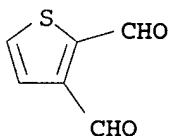
IT Hair preparations  
(dyes; hair dyeing compns. comprising heterocyclic dialdehyde and)

IT Dialdehydes  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(heterocyclic; hair dyeing compns. comprising heterocyclic dialdehyde and)

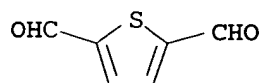
IT 78-96-6, Monoisopropanolamine 92-65-9, N,N-(Ethyl- $\beta$ -hydroxyethyl)-p-Phenylenediamine 93-05-0, N,N-Diethyl-p-Phenylenediamine 95-70-5, p-Toluenediamine 99-98-9, N,N-Dimethyl-p-Phenylenediamine 101-54-2, N-(Phenyl)-p-Phenylenediamine 102-71-6, Triethanolamine, biological studies 106-50-3, p-Phenylenediamine, biological studies 106-50-3D, p-Phenylenediamine, derivs. 141-43-5, Monoethanolamine, biological studies 148-71-0, 4-Amino-N,N-Diethyl-3-methylaniline 537-65-5 615-66-7, 2-Chloro-p-Phenylenediamine 932-41-2, 2,3-Thiophenedicarboxaldehyde 932-95-6, 2,5-Thiophenedicarboxaldehyde 1630-11-1, 2,6-Diethyl-p-Phenylenediamine 2359-52-6 2359-53-7 2632-65-7 5306-96-7, 2,3-Dimethyl-p-Phenylenediamine 5431-44-7, 2,6-Pyridinedicarboxaldehyde 5862-80-6 6393-01-7, 2,5-Dimethyl-p-Phenylenediamine 7218-02-2, 2,6-Dimethyl-p-Phenylenediamine 7575-35-1, N,N-Bis( $\beta$ -hydroxyethyl)-p-Phenylenediamine 14791-78-7, 2-Fluoro-p-phenylenediamine 27138-37-0, Pyridinedicarboxaldehyde 27138-37-0D, Pyridinedicarboxaldehyde, derivs. 37812-28-5, Furantetracarboxaldehyde 51952-99-9, 3,4-Dimethyl-2,5-Pyrroledicarboxaldehyde 56331-22-7 66566-48-1 73793-80-3, 2-Hydroxymethyl-p-phenylenediamine 80467-77-2 81752-41-2, Furandicarboxaldehyde 81752-41-2D, Furandicarboxaldehyde, derivs. 93841-24-8, 2- $\beta$ -Hydroxyethyl-p-phenylenediamine 97902-52-8, 2-Isopropyl-p-phenylenediamine 105293-89-8, N,N-Dipropyl-p-Phenylenediamine 105607-68-9 126335-43-1, 2- $\beta$ -Hydroxyethoxy-p-Phenylenediamine 137818-67-8, Thiophenedicarboxaldehyde 137818-67-8D, Thiophenedicarboxaldehyde, derivs. 207568-58-9 244104-61-8 503457-32-7 697753-72-3, 1H-Pyrroledicarboxaldehyde 697753-72-3D, 1H-Pyrroledicarboxaldehyde, derivs.  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair dyeing compns. comprising heterocyclic dialdehyde and)

IT 932-41-2, 2,3-Thiophenedicarboxaldehyde 932-95-6, 2,5-Thiophenedicarboxaldehyde 5431-44-7, 2,6-Pyridinedicarboxaldehyde 37812-28-5, Furantetracarboxaldehyde 51952-99-9, 3,4-Dimethyl-2,5-Pyrroledicarboxaldehyde  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair dyeing compns. comprising heterocyclic dialdehyde and)

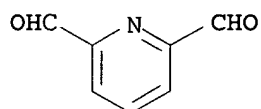
RN 932-41-2 HCAPLUS  
CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



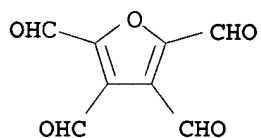
RN 932-95-6 HCAPLUS  
CN 2,5-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



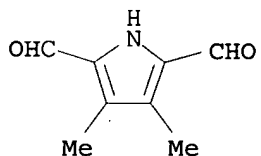
RN 5431-44-7 HCAPLUS  
 CN 2,6-Pyridinedicarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 37812-28-5 HCAPLUS  
 CN Furantetracarboxaldehyde (9CI) (CA INDEX NAME)



RN 51952-99-9 HCAPLUS  
 CN 1H-Pyrrole-2,5-dicarboxaldehyde, 3,4-dimethyl- (9CI) (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:95403 HCAPLUS

DN 140:151575

TI Use of diamines having at least one quaternized group and dialdehydes for dyeing keratin fibers

IN Plos, Gregory

PA L'oreal, Fr.

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

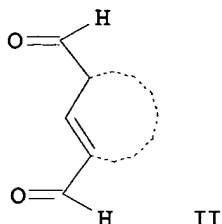
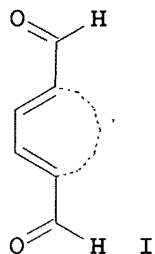
DT Patent

LA French

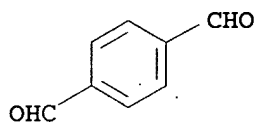
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1386603	A1	20040204	EP 2003-291746	20030715
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	FR 2843022	A1	20040206	FR 2002-9803	20020801

PRAI FR 2002-9803 A 20020801  
OS MARPAT 140:151575  
GI

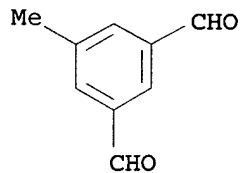


- AB Hair dye preps. containing dialdehydes I or II (A is a substituted carbocyclic or heterocyclic group) and a quaternized diamine group are disclosed. A hair dye preparation contained terephthalaldehyde  $3 \times 10^{-3}$  mole, aromatic diamine of the invention  $6 \times 10^{-3}$  mole, Acid Blue 147 0.5 g, 2-amino-2-methyl-1-propanol q.s. pH = 9, and water q.s. 100 g.
- IC ICM A61K007-13
- CC 62-3 (Essential Oils and Cosmetics)
- ST quaternary diamine dialdehyde hair dye
- IT Amines, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(diamines, quaternary; use of diamines having at least one quaternized group and dialdehydes for dyeing keratin fibers)
- IT Hair preparations  
(dyes; use of diamines having at least one quaternized group and dialdehydes for dyeing keratin fibers)
- IT 623-27-8, 1,4-Benzenedicarboxaldehyde 1805-67-0,  
5-Methylbenzene-1,3-dicarboxaldehyde 3328-70-9,  
5-Formylsalicylaldehyde 7044-91-9, 9,10-  
Anthracenedicarboxaldehyde 7072-01-7 7310-95-4,  
2,6-Diformyl-4-methylphenol 7310-97-6, 2,5-Dimethoxybenzene-1,4-  
dicarboxaldehyde 15138-39-3, 2,4,6-Trimethylisophthalaldehyde  
25445-35-6 32596-43-3, 2,6-Di-formyl-4-chlorophenol  
38153-01-4, 1,4-Naphthalenedicarboxaldehyde 81502-74-1  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(use of diamines having at least one quaternized group and dialdehydes for dyeing **keratin** fibers)
- IT 623-27-8, 1,4-Benzenedicarboxaldehyde 1805-67-0,  
5-Methylbenzene-1,3-dicarboxaldehyde 3328-70-9,  
5-Formylsalicylaldehyde 7044-91-9, 9,10-  
Anthracenedicarboxaldehyde 7072-01-7 7310-95-4,  
2,6-Diformyl-4-methylphenol 7310-97-6, 2,5-Dimethoxybenzene-1,4-  
dicarboxaldehyde 15138-39-3, 2,4,6-Trimethylisophthalaldehyde  
25445-35-6 32596-43-3, 2,6-Di-formyl-4-chlorophenol  
38153-01-4, 1,4-Naphthalenedicarboxaldehyde 81502-74-1  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(use of diamines having at least one quaternized group and dialdehydes for dyeing **keratin** fibers)
- RN 623-27-8 HCAPLUS
- CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



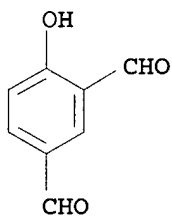
RN 1805-67-0 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 5-methyl- (9CI) (CA INDEX NAME)



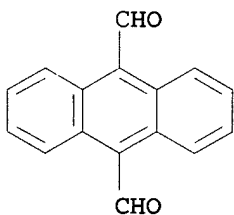
RN 3328-70-9 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 4-hydroxy- (9CI) (CA INDEX NAME)



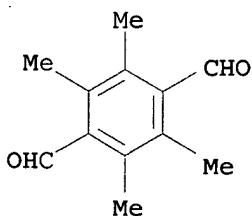
RN 7044-91-9 HCAPLUS

CN 9,10-Anthracenedicarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



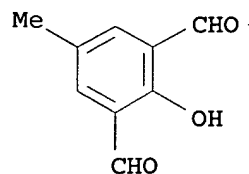
RN 7072-01-7 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde, 2,3,5,6-tetramethyl- (9CI) (CA INDEX NAME)



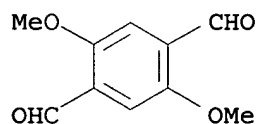
RN 7310-95-4 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 2-hydroxy-5-methyl- (9CI) (CA INDEX NAME)



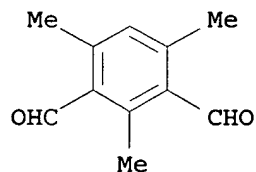
RN 7310-97-6 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde, 2,5-dimethoxy- (9CI) (CA INDEX NAME)



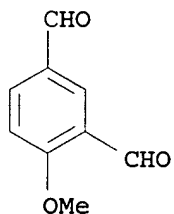
RN 15138-39-3 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 2,4,6-trimethyl- (9CI) (CA INDEX NAME)



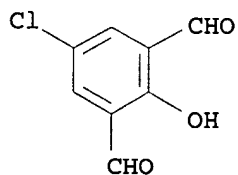
RN 25445-35-6 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 4-methoxy- (9CI) (CA INDEX NAME)



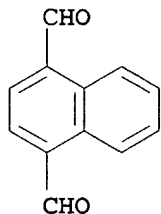
RN 32596-43-3 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 5-chloro-2-hydroxy- (9CI) (CA INDEX NAME)



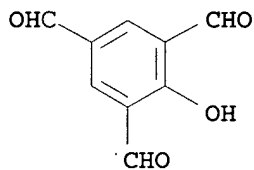
RN 38153-01-4 HCAPLUS

CN 1,4-Naphthalenedicarboxaldehyde (6CI, 9CI) (CA INDEX NAME)



RN 81502-74-1 HCAPLUS

CN 1,3,5-Benzenetricarboxaldehyde, 2-hydroxy- (9CI) (CA INDEX NAME)



RE.CNT 7      THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 5 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:875079 HCAPLUS

DN 139:354147

TI Use of  $\alpha$ -dialdehydes in the presence of an ammonium salt of a  
Broensted acid for dyeing keratin fibers

IN Plos, Gregory; Daubresse, Nicolas

PA L'Oreal, Fr.

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003090701	A1	20031106	WO 2003-EP5408	20030425
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
	PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,				
	UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,				
	KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,				
	FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,				
	BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	FR 2838961	A1	20031031	FR 2002-5186	20020425
	BR 2003004824	A	20041207	BR 2003-4824	20030425
	EP 1501471	A1	20050202	EP 2003-747128	20030425
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRAI FR 2002-5186 A 20020425  
US 2002-382632P P 20020524  
WO 2003-EP5408 W 20030425

OS MARPAT 139:354147

AB The invention relates to the use, for dyeing keratin fibers, of aromatic or non-aromatic carbocyclic, monocyclic or polycyclic  $\alpha$ -dialdehydes in the presence of at least one ammonium salt of a Broensted acid. A composition contained o-phthaldehyde 0.4, ammonium acetate 1.3, and distilled water to 100%.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye dialdehyde Broensted acid

IT Keratins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
( $\alpha$ -dialdehydes in the presence of an ammonium salt of a Broensted acid for dyeing keratin fibers)

IT Bronsted acids  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
( $\alpha$ -dialdehydes in the presence of an ammonium salt of a Broensted acid for dyeing keratin fibers)

IT Dialdehydes  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
( $\alpha$ -dialdehydes in the presence of an ammonium salt of a Broensted acid for dyeing keratin fibers)

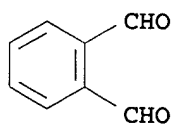
IT 643-79-8, 1,2-Benzenedicarboxaldehyde 932-41-2,  
Thiophene-2,3-dicarboxaldehyde 7149-49-7, Naphthalene-2,3-dicarboxaldehyde 43073-12-7, 1,2-Benzenedicarboxaldehyde, 4,5-dimethoxy- 76197-35-8, Anthracene-2,3-dicarboxaldehyde  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
( $\alpha$ -dialdehydes in the presence of an ammonium salt of a Broensted acid for dyeing keratin fibers)

IT 1066-33-7, Ammonium bicarbonate 7783-20-2, Ammonium sulfate, biological studies 10124-31-9, Ammonium phosphate  
RL: COS (Cosmetic use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
( $\alpha$ -dialdehydes in the presence of an ammonium salt of a Broensted acid for dyeing keratin fibers)

IT 643-79-8, 1,2-Benzenedicarboxaldehyde 932-41-2,  
Thiophene-2,3-dicarboxaldehyde 7149-49-7, Naphthalene-2,3-dicarboxaldehyde 43073-12-7, 1,2-Benzenedicarboxaldehyde, 4,5-dimethoxy- 76197-35-8, Anthracene-2,3-dicarboxaldehyde  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
( $\alpha$ -dialdehydes in the presence of an ammonium salt of a Broensted acid for dyeing keratin fibers)

RN 643-79-8 HCAPLUS

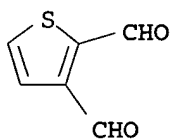
CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



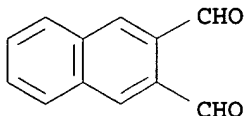
RN 932-41-2 HCAPLUS

CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)

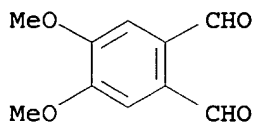




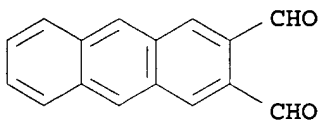
RN 7149-49-7 HCAPLUS  
 CN 2,3-Naphthalenedicarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 43073-12-7 HCAPLUS  
 CN 1,2-Benzenedicarboxaldehyde, 4,5-dimethoxy- (9CI) (CA INDEX NAME)



RN 76197-35-8 HCAPLUS  
 CN 2,3-Anthracenedicarboxaldehyde (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:859396 HCAPLUS  
 DN 139:341433  
 TI  $\alpha$ -Dialdehydes and a Bronsted-acid ammonium salt for the dyeing of  
 hair fibers  
 IN Plos, Gregory; Daubresse, Nicolas  
 PA L'Oreal, Fr.  
 SO Fr. Demande, 25 pp.  
 CODEN: FRXXBL

DT Patent  
 LA French

FAN.CNT 2

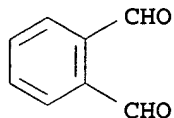
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2838961	A1	20031031	FR 2002-5186	20020425
	WO 2003090701	A1	20031106	WO 2003-EP5408	20030425
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 BR 2003004824 A 20041207 BR 2003-4824 20030425  
 EP 1501471 A1 20050202 EP 2003-747128 20030425  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 PRAI FR 2002-5186 A 20020425  
 US 2002-382632P P 20020524  
 WO 2003-EP5408 W 20030425  
 OS MARPAT 139:341433  
 AB Hair dye compns. comprise  $\alpha$ -dialdehydes and at least an ammonium  
 salt of a Bronsted acid. Thus, a composition contained o-phthalaldehyde 0.4,  
 NH<sub>4</sub>OAc 1.3, and water qs to 100%.  
 IC ICM A61K007-13  
 CC 62-3 (Essential Oils and Cosmetics)  
 ST dialdehyde ammonium salt Bronsted acid hair dye  
 IT Carboxylic acids, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (ammonium salts;  $\alpha$ -dialdehydes and Bronsted-acid ammonium salts  
 for dyeing of hair fibers)  
 IT Surfactants  
 (anionic;  $\alpha$ -dialdehydes and Bronsted-acid ammonium salts for  
 dyeing of hair fibers)  
 IT Dialdehydes  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (aromatic;  $\alpha$ -dialdehydes and Bronsted-acid ammonium salts for dyeing  
 of hair fibers)  
 IT Hair preparations  
 (dyes;  $\alpha$ -dialdehydes and Bronsted-acid ammonium salts for dyeing  
 of hair fibers)  
 IT Sulfonic acids, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (salts;  $\alpha$ -dialdehydes and Bronsted-acid ammonium salts for dyeing  
 of hair fibers)  
 IT Bronsted acids  
 Dialdehydes  
 Phosphates, biological studies  
 Sulfates, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 ( $\alpha$ -dialdehydes and Bronsted-acid ammonium salts for dyeing of  
 hair fibers)  
 IT 631-61-8, Ammonium acetate 643-79-8, o-Phthalaldehyde  
 643-79-8D, o-Phthalaldehyde, derivs. 932-41-2,  
 2,3-Thiophenedicarboxaldehyde 1066-33-7, Ammonium hydrogen carbonate  
 7149-49-7, 2,3-Naphthalenedicarboxaldehyde 7783-20-2, Ammonium  
 sulfate, biological studies 10124-31-9, Ammonium phosphate  
 43073-12-7 76197-35-8, Anthracene-2,3-dialdehyde  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 ( $\alpha$ -dialdehydes and Bronsted-acid ammonium salts for dyeing of  
 hair fibers)  
 IT 643-79-8, o-Phthalaldehyde 643-79-8D, o-Phthalaldehyde,  
 derivs. 932-41-2, 2,3-Thiophenedicarboxaldehyde  
 7149-49-7, 2,3-Naphthalenedicarboxaldehyde 43073-12-7  
 76197-35-8, Anthracene-2,3-dialdehyde  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

( $\alpha$ -dialdehydes and Bronsted-acid ammonium salts for dyeing of hair fibers)

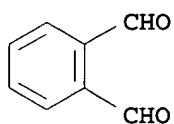
RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



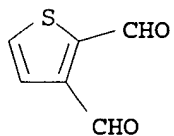
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CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



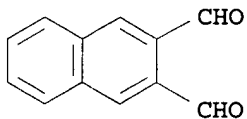
RN 932-41-2 HCAPLUS

CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



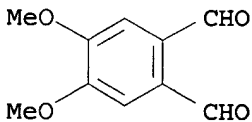
RN 7149-49-7 HCAPLUS

CN 2,3-Naphthalenedicarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



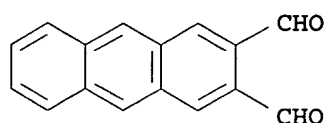
RN 43073-12-7 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde, 4,5-dimethoxy- (9CI) (CA INDEX NAME)



RN 76197-35-8 HCAPLUS

CN 2,3-Anthracenedicarboxaldehyde (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:470262 HCAPLUS

DN 139:41428

TI Melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin

IN Berens, Werner; Smuda, Christoph; Wolber, Rainer; Staeb, Franz; Blatt, Thomas; Giesen, Kyra

PA Beiersdorf AG, Germany

SO Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1319392	A2	20030618	EP 2002-26708	20021130
	EP 1319392	A3	20030827		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	DE 10160966	A1	20030626	DE 2001-10160966	20011212
PRAI	DE 2001-10160966	A	20011212		
AB	The invention concerns hair dyes and other hair preps. that contain advanced glycosylation end products (AGEs), their precursors and/or lipofuscins for the promoting the formation and accumulation of melanin. Thus a pearly shampoo contained (weight/weight%): polyquaternium-10 0.50; sodium laureth sulfate 9.00; cocoamidopropyl betaine 2.50; perly substance 2.00; A2E 0.1; disodium EDTA 0.10; preservative, perfume, thickening agent, emulsifier, solns. to set pH 6 q.s.; water to 100.				
IC	ICM A61K007-13				
CC	62-3 (Essential Oils and Cosmetics)				
ST	melanin hair dye prepn advanced glycosylation end product lipofuscin				
IT	Glycoproteins				
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)				
	(AGE (advanced glycosylation end product); melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)				
IT	Hair preparations				
	(conditioners; melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)				
IT	Hair preparations				
	(dyes; melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)				
IT	Hair preparations				
	Shampoos				
	(melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)				
IT	Melanins				
	RL: BSU (Biological study, unclassified); BIOL (Biological study)				
	(melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)				
IT	Lipofuscins				

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)

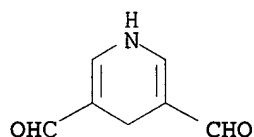
IT 61354-90-3 61354-90-3D, N-substituted derivs.  
67350-50-9D, N-substituted protein, peptide or C1-C35 alkyl derivs.  
91037-91-1D, N-substituted protein, peptide or C1-C35 alkyl derivs.  
124505-87-9, Pentosidine 173449-96-2, A2E 401574-77-4D, N-substituted protein, peptide or C1-C35 alkyl derivs.

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)

IT 61354-90-3 61354-90-3D, N-substituted derivs.  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(melanin-forming hair dyes containing advanced glycosylation end products and/or lipofuscin)

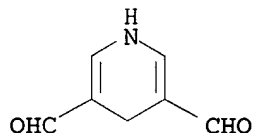
RN 61354-90-3 HCAPLUS

CN 3,5-Pyridinedicarboxaldehyde, 1,4-dihydro- (9CI) (CA INDEX NAME)



RN 61354-90-3 HCAPLUS

CN 3,5-Pyridinedicarboxaldehyde, 1,4-dihydro- (9CI) (CA INDEX NAME)



L83 ANSWER 8 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:282162 HCAPLUS

DN 138:292389

TI Oxidative hair dyes containing aromatic dicarbonyl compounds, other dyes and color intensifiers

IN Gross, Wibke; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1300134	A2	20030409	EP 2002-21429	20020925
	EP 1300134	A3	20030423		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	DE 10148843	A1	20030410	DE 2001-10148843	20011004
PRAI	DE 2001-10148843	A	20011004		
OS	MARPAT 138:292389				

AB The invention concerns hair dyes that contain aromatic dicarbonyl compds. and

substances selected from the group of (a) CH-acids; (b) primary and secondary aromatic amines, hydroxydes, nitrogen-containing heterocycles; further the compns. can contain color intensifiers and direct dyes. Thus in a hair dyeing experiment 3 mmol 1,2,3,3-tetramethylindolinium iodide and 0.41 g sodium acetate were mixed in 30 g water; 3 mmol 4-dimethylamino-6-methyl-isophthalaldehyde were added and pH6 was set; the solution was used to dye hair; red-violet color was obtained.

- IC ICM A61K007-13  
ICS D06P003-14  
CC 62-3 (Essential Oils and Cosmetics)  
ST oxidative hair dye arom dicarbonyl compd  
IT Surfactants  
(anionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Amines, biological studies  
Dicarbonyl compounds  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(aromatic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Amines, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(aryl, heterocyclic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Amines, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(aryl, secondary; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Dyes  
(direct; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Hair preparations  
(dyes, oxidative; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Hair preparations  
(dyes; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Surfactants  
(nonionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Oxidizing agents  
(oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Aromatic compounds  
Heterocyclic compounds  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT Surfactants  
(zwitterionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)  
IT 50-21-5D, salts of 59-48-3, Oxindole 62-53-3, Aniline, biological studies 64-18-6D, Formic acid, salts of 64-19-7D, Acetic acid, salts of 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 71-00-1, L-Histidine, biological studies 77-92-9D, salts of 79-09-4D, Propanoic acid, salts of 79-14-1D, salts of 83-07-8, 4-Aminoantipyrine 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1D, Anthraquinone, derivs. 87-02-5 87-66-1, Pyrogallol 87-69-4D, salts of 88-21-1, 2-Aminobenzenesulfonic acid 88-74-4, 2-Nitroaniline 89-25-8, 1-Phenyl-3-methylpyrazol-5-one 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid

90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0 91-29-2  
91-95-2, 3,3',4,4'-Tetraaminodiphenyl 92-44-4, 2,3-Dihydroxynaphthalene  
92-65-9 93-05-0 95-54-5, o-Phenylenediamine, biological studies  
95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluol 95-88-5,  
4-Chlororesorcin 96-91-3, Picramic acid 96-93-5 98-37-3,  
3-Amino-4-hydroxy-benzenesulfonic acid 98-79-3, Pyrrolidone-5-carboxylic  
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol  
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid  
99-56-9, 1,2-Diamino-4-nitrobenzene 99-98-9' 100-01-6, 4-Nitroaniline,  
biological studies 101-54-2, N-Phenyl-1,4-phenylenediamine 101-77-9  
101-80-4, 4,4'-Diaminodiphenylether 102-32-9, 3,4-Dihydroxyphenylacetic  
acid 102-33-0 106-50-3, p-Phenylenediamine, biological studies  
107-92-6D, Butanoic acid, salts of 108-45-2, m-Phenylenediamine,  
biological studies 108-46-3, Resorcin, biological studies 108-72-5,  
1,3,5-Triaminobenzene 108-73-6, Phloroglucin 109-00-2,  
3-Hydroxypyridine 109-52-4D, Pentanoic acid, salts of 110-85-0,  
Piperazine, biological studies 110-86-1, Pyridine, biological studies  
110-89-4, Piperidine, biological studies 116-63-2 118-12-7 118-70-7,  
4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6  
119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-  
Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzenesulfonic  
acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol  
123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine,  
biological studies 126-81-8 139-65-1, 4,4'-Diaminodiphenylsulfide  
141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 142-08-5,  
2-Hydroxypyridine 142-62-1D, Hexanoic acid, salts of 147-85-3,  
Proline, biological studies 149-91-7, Gallic acid, biological studies  
150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4,  
4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0,  
2,4-Diaminopyrimidine 288-13-1, Pyrazole 288-32-4, Imidazole,  
biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4,  
2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9,  
2,5-Dimethylresorcin 496-73-1, 4-Methylresorcin 498-94-2,  
Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid  
500-85-6D, Indophenol, derivs. 504-15-4 504-17-6, Thiobarbituric acid  
504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 526-95-4D,  
D-Gluconic acid, salts of 533-31-3, 3,4-Methylenedioxyphenol 533-73-3,  
Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5,  
3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 553-86-6,  
2-Coumaranone 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline  
580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,  
2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,  
2,3-Diaminobenzoic acid 605-59-4 606-23-5, Indan-1,3-dione 606-55-3  
606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxyl acetate  
608-25-3, 2-Methylresorcin 608-97-9, Benzenepentamine 609-20-1  
610-74-2, 2,5-Diaminobenzoic acid 610-81-1 611-03-0,  
2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 614-16-4,  
Benzoylacetonitrile 614-82-4, 2,4-Dihydroxyphenylacetic acid 615-66-7  
615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7,  
1-Methyl-Imidazole 619-05-6, 3,4-Diaminobenzoic acid 626-64-2,  
4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 873-74-5,  
4-Aminobenzonitrile 876-87-9 934-22-5, 5-Aminobenzimidazole  
1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-  
triaminopyrimidine 1080-74-6 1123-55-3, 7-Aminobenzothiazole  
1123-93-9, 5-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline  
1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-  
triazole 1571-72-8, 3-Amino-4-hydroxy-benzoic acid 1820-80-0,  
3-Aminopyrazole 2374-03-0, 4-Amino-3-hydroxy-benzoic acid 2654-52-6  
2688-48-4, 5-Hydroxy-2-Coumaranone 2688-49-5 2785-06-0 2835-95-2,  
2-Methyl-5-aminophenol 2835-98-5 2835-99-6, 4-Amino-3-methylphenol

2836-04-6 2845-88-7 2871-01-4 3119-93-5 3131-52-0,  
5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid  
3167-49-5, 6-Aminonicotinic acid 3204-61-3, 1,2,4,5-Tetraaminobenzene  
3240-72-0, 2,4-Dihydroxy-5,6-diaminopyrimidine 3342-78-7,  
2-Aminophenylacetic acid 3468-11-9 3769-62-8, Gallion 3812-32-6D,  
Carbonate, salts of 4318-76-7, 2,5-Diaminopyridine 4331-29-7,  
7-Aminobenzimidazole 4444-26-2, Benzenehexamine 4928-43-2,  
2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-  
Tetraaminobenzophenone 5099-39-8 5131-58-8 5192-03-0, 5-Aminoindole  
5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0,  
1,3-Diethylthiobarbituric acid 5260-37-7 5307-02-8, 2,5-Diaminoanisole  
5307-14-2, 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole  
5345-47-1, 2-Aminonicotinic acid 5418-63-3 5434-20-8, 3-Aminophthalic  
acid 5466-88-6, 2H-1,4-Benzoxazin-3(4H)-one 5718-83-2,  
Rhodanine-3-acetic acid 5850-35-1, Acid Blue 29 5959-52-4 6201-65-6,  
2-Chlororesorcin 6247-27-4, Mordant Brown 4 6259-50-3 6271-44-9  
6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0 6628-04-2,  
4-Aminoquinoline 6634-82-8 6967-12-0, 6-Aminoindazole 7218-02-2  
7336-20-1 7429-90-5D, Aluminum, derivs 7439-89-6D, Iron, derivs  
7439-93-2D, Lithium, derivs 7439-95-4D, Magnesium, derivs 7439-96-5D,  
Manganese, derivs 7440-09-7D, Potassium, derivs 7440-23-5D, Sodium,  
derivs 7440-24-6D, Strontium, derivs 7440-39-3D, Barium, derivs  
7440-48-4D, Cobalt, derivs 7440-50-8D, Copper, derivs 7440-66-6D,  
Zinc, derivs 7440-70-2D, Calcium, derivs 7575-35-1 7722-84-1,  
Hydrogen peroxide, biological studies 7749-47-5, 2-Amino-4-methoxy-6-  
methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)-phenol 10173-66-7  
13066-97-2 13598-36-2D, Phosphonic acid, salts of 13754-19-3,  
4,5-Diaminopyrimidine 14265-44-2D, Phosphate, salts of 14268-66-7,  
3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid  
14808-79-8D, Sulfate, salts of 14933-76-7 16082-33-0,  
3,5-Diaminopyrazole 16214-27-0, Indan-1,2-dione 16859-86-2  
16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9 19335-11-6,  
5-Aminoindazole

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing aromatic dicarbonyl compds., other  
dyes and color intensifiers)

IT 20048-92-4 20103-09-7 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine  
23244-87-3, 2,4,5-Triaminopyridine 23894-07-7 24905-87-1 26216-16-0  
27841-29-8 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,  
5,6-Dihydroxyindoline 29705-39-3 31835-64-0, 3-Amino-3'-nitrobiphenyl  
31905-57-4D, Nitrophenylenediamine, derivs. 32479-73-5,  
1,3-Diethylbarbituric acid 35490-72-3 36518-76-0 37705-82-1,  
2,4-Diaminobenzonitrile 41927-50-8 41946-53-6 42952-29-4  
43093-74-9D, Nitroaminophenol, derivs. 50610-28-1 50610-33-8  
51387-92-9 52943-88-1, 1-Phenyl-3-methyl-4,5-diaminopyrazole  
55302-96-0 55952-56-2 56932-44-6 58480-17-4 60126-36-5  
61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol 62496-02-0,  
2-Methylamino-4,5,6-triaminopyrimidine 63969-46-0, Bis-(5-amino-2-  
hydroxyphenyl)-methane 64693-48-7 64993-07-3,  
5-Amino-6-nitrobenzo-1,3-dioxole 66566-48-1 66635-40-3,  
4,4'-Diaminostilbene dihydrochloride 67608-58-6 67608-59-7  
68391-32-2 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5,  
2,4-Diaminophenoxyethanol 71134-97-9 77484-77-6 79352-72-0,  
2-Aminomethyl-4-aminophenol 81892-72-0, 1,3-Bis-(2,4-diaminophenoxy)-  
propane 82576-75-8, HC Violet 1 83763-47-7 84540-47-6,  
2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 85561-52-0,  
1-Phenyl-4,5-diaminopyrazole 85679-78-3, 2,6-Dimethoxy-3,5-  
diaminopyridine 85926-99-4, 4-Hydroxyindoline 90817-34-8 93841-24-8  
93923-57-0 95576-89-9, HC Red 10 99855-61-5 104333-09-7,  
2-Hydroxymethyl-4-aminophenol 110102-86-8 110952-46-0 114260-09-2



114402-54-9, 1,3-Bis-(4-aminophenylamino)-propane 115423-85-3  
115423-86-4 117907-43-4 126335-43-1, 2-(2,5-Diaminophenoxy) ethanol  
128729-30-6, 1,3-Bis-[N-(4-aminophenyl)-2-hydroxyethylamino]-2-propanol  
130582-56-8, 1,3-Bis-(4-aminophenylamino)-2-propanol 137290-78-9  
137290-86-9 141614-04-2 141614-05-3 145092-00-8,  
3-Amino-5-hydroxypyrazole 146658-65-3 149330-25-6 155601-17-5,  
1-(2-Hydroxyethyl)-4,5-diaminopyrazole 159519-79-6, Brenzcatechin  
159661-40-2 159661-41-3 159661-42-4 159661-43-5 159661-45-7,  
1,8-Bis-(2,5-diaminophenoxy)-3,6-dioxaoctane 211872-02-5 220118-56-9  
313219-61-3 346593-13-3, 3-Amino-4-nitro-acenaphthene 346684-81-9  
375856-52-3 503856-02-8 503856-16-4 503856-17-5 503856-18-6  
506436-20-0 506436-21-1 506436-47-1

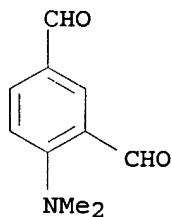
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(oxidative hair dyes containing aromatic dicarbonyl compds., other  
dyes and color intensifiers)

IT 2845-88-7 64693-48-7 99855-61-5

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(oxidative hair dyes containing aromatic dicarbonyl compds., other  
dyes and color intensifiers)

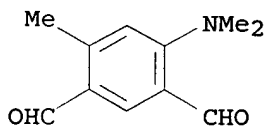
RN 2845-88-7 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 4-(dimethylamino)- (9CI) (CA INDEX NAME)



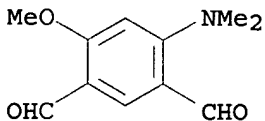
RN 64693-48-7 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 4-(dimethylamino)-6-methyl- (9CI) (CA INDEX NAME)



RN 99855-61-5 HCAPLUS

CN 1,3-Benzenedicarboxaldehyde, 4-(dimethylamino)-6-methoxy- (9CI) (CA INDEX NAME)



L83 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:278296 HCAPLUS

DN 138:308929

TI Use of carbonyl compounds in hair treating compositions to enhance color fastness of dyed hair  
 IN Oberkobusch, Doris; Hoeffkes, Horst; Hollenberg, Detlef; Gross, Wibke; Akram, Mustafa; Moeller, Hinrich  
 PA Henkel K.-G.a.A., Germany  
 SO Ger. Offen., 32 pp.  
 CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10148671	A1	20030410	DE 2001-10148671	20011002
	WO 2003030848	A1	20030417	WO 2002-EP10957	20020930
	W: AU, BR, CA, CN, HU, JP, NO, PL, RU, US, VN				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	EP 1432395	A1	20040630	EP 2002-800586	20020930
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
PRAI	DE 2001-10148671	A	20011002		
	WO 2002-EP10957	W	20020930		

AB The invention concerns a method to increase color fastness of dyed hair that includes the treatment of hair before or after the dyeing process with a composition that contains aryl, heteroaryl or cyclic aliphatic carbonyl compds. with the exception of anthraquinone derivs. The treatment compns. further can contain polymers, surfactants, direct dyes protein hydrolyzates, UV filters, but they do not contain oxidative dyes. Thus a hair dye contained (g): Hydrenol D 8.5; Lorol 2.0; Eumulgin B2 1.5; Texapon NSO 15.0; Dehyton K 12.5; sodium sulfite 0.5; ascorbic acid 0.2; 4,5-diamino-1-(2-hydroxyethyl)pyrazole x H2SO4 1.03; ammonia (25% aqueous solution) to pH 10; water to 100. The dye was used in expts. for coloring hair. Samples were not treated after dyeing or treated with a composition that contained (g): Texapon NSO 15.0; Dehyton K 12.5; Hydrenol D 8.5; Lorol 2.0; Eumulgin B2 0.75; sodium sulfite 0.25; ascorbic acid 0.20; 3-dicyanmethylen indane-1-one 1.16; ammonia (25% aqueous solution) to pH 10; water to 100. Treated and untreated hair samples were exposed to washing tests and color fastness was measured; the treated samples were superior by 4.44 units.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye color fastness carbonyl compd

IT Optical filters

(UV; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)

IT Carbonyl compounds (organic), biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(aromatic; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)

IT Carbonyl compounds (organic), biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(cyclic aliphatic; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)

IT Dyes

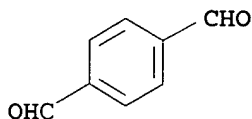
(direct; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)

IT Hair preparations

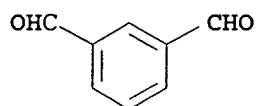
(dyes, oxidative, excluded; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)

IT Hair preparations

- (dyes; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- IT Color  
(fastness; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- IT Carbonyl compounds (organic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(heteroaryl; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- IT Surfactants  
(use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- IT Carbonyl compounds (organic), biological studies  
Polymers, biological studies  
Protein hydrolyzates  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- IT 84-65-1D, Anthraquinone, derivs.  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(excluded; use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- IT 82-86-0, Acenaphthenequinone 84-11-7, 9,10-Phenanthrenequinone  
90-15-3, 1-Naphthalenol 91-56-5, Isatin 99-61-6, 3-Nitrobenzaldehyde  
458-36-6, Coniferylaldehyde 492-73-9, 2,2'-Pyridil 524-42-5,  
1,2-Naphthoquinone 552-89-6, 2-Nitrobenzaldehyde 555-16-8,  
4-Nitrobenzaldehyde, biological studies 611-09-6, 5-Nitroisatin  
615-94-1, 2,5-Dihydroxy-p-benzoquinone 623-27-8,  
Terephthalaldehyde 626-19-7, Isophthalaldehyde 830-74-0  
1080-74-6 1477-49-2 2066-93-5, 1,2-Naphthoquinone-4-sulfonic acid  
2835-95-2 2835-99-6 3433-54-3 6203-18-5 6369-59-1 14874-70-5D,  
Tetrafluoroborate, salts 15201-05-5D, salts 16053-58-0D, salts  
16722-51-3D, salts, biological studies 16887-00-6D, Chloride, salts  
16919-18-9D, Hexafluorophosphate, salts 19012-03-4 20461-54-5, Iodide,  
biological studies 24959-67-9D, Bromide, salts 37181-39-8D, salts  
54628-24-9D, salts 61394-93-2, 4-Nitroisatin 112656-95-8 118860-85-8  
122438-74-8D, salts 149330-25-6 223398-02-5 223398-08-1  
364343-79-3 507490-23-5 507490-24-6D, salts  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- IT 623-27-8, Terephthalaldehyde 626-19-7, Isophthalaldehyde  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(use of carbonyl compds. in hair treating compns. to enhance color fastness of dyed hair)
- RN 623-27-8 HCAPLUS
- CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



- RN 626-19-7 HCAPLUS
- CN 1,3-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



L83 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:5740 HCAPLUS

DN 138:78134

TI Direct hair dyes composed of 1-benzopyrane-derivatives and an electrophilic substance

IN Sauter, Guido; Braun, Hans-Juergen; Brouillard, Raymond; Fougerousse, Andre; Roehri-Stoeckel, Christine

PA Wella Aktiengesellschaft, Germany

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003000214	A1	20030103	WO 2002-EP1194	20020206
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	DE 10130144	A1	20030102	DE 2001-10130144	20010622
	BR 2002005662	A	20030715	BR 2002-5662	20020206
	EP 1404289	A1	20040407	EP 2002-714147	20020206
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2004521144	T2	20040715	JP 2003-506861	20020206
	US 2003196281	A1	20031023	US 2003-380896	20030320
PRAI	DE 2001-10130144	A	20010622		
	WO 2002-EP1194	W	20020206		

OS MARPAT 138:78134

AB The invention concerns a two component hair dye where the components are mixed in the presence of acids or bases if required to form a direct dye that can be removed with sulfite-containing reducing agents if required. The first component includes 1-benzopyrane-derivs.; the second component contains an electrophilic substance that is selected from the group of carbonyls, imines and 1-alkyl-quinoline derivs. Thus a first components was composed of (g): 7-hydroxy-4-methyl-2-phenyl-1-benzylpyrylium chloride 3.14; cetylstearyl alc. 12.0; Brij 78 P 2.8; ethanol 24.8; water to 100. The second component was a mixture of (g): 4-hydroxy-3-methoxy-benzaldehyde 1.75; cetylstearyl alc. 12.0; Brij 78 P 2.8; ethanol 24.8; water to 100.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye benzopyrane deriv electrophilic substance

IT Electrophiles

Reducing agents

pH

- (direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)
- IT Carbonyl compounds (organic), biological studies  
Imines  
Sulfites  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)
- IT Dyes  
(direct; direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)
- IT Hair preparations  
(dyes; direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)
- IT Enzymes, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(oxidizing, for in-situ carbonyl production; direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)
- IT 91-22-5, Quinoline, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(1-alkyl-derivs.; direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)
- IT 58-27-5, 2-Methyl-1,4-naphthoquinone 86-51-1, 2,3-Dimethoxybenzaldehyde 90-02-8, 2-Hydroxybenzaldehyde, biological studies 93-02-7, 2,5-Dimethoxybenzaldehyde 95-01-2, 2,4-Dihydroxybenzaldehyde 98-03-3, 2-Thiophenecarboxaldehyde 99-61-6, 3-Nitrobenzaldehyde 100-10-7, 4-Dimethylaminobenzaldehyde 120-14-9, 3,4-Dimethoxybenzaldehyde 121-32-4, 3-Ethoxy-4-hydroxybenzaldehyde 121-33-5, 4-Hydroxy-3-methoxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 134-96-3, 3,5-Dimethoxy-4-hydroxybenzaldehyde 139-85-5, 3,4-Dihydroxybenzaldehyde 148-53-8, 2-Hydroxy-3-methoxybenzaldehyde 254-04-6D, 2H-1-Benzopyran, derivs. 458-36-6 487-70-7, 2,4,6-Trihydroxybenzaldehyde 487-89-8, Indole-3-carbaldehyde 498-62-4, Thiophen-3-aldehyde 552-89-6, 2-Nitrobenzaldehyde 555-16-8, 4-Nitrobenzaldehyde, biological studies 613-45-6, 2,4-Dimethoxybenzaldehyde 619-66-9, 4-Carboxybenzaldehyde 620-02-0, 5-Methylfurfural 621-59-0, 3-Hydroxy-4-methoxybenzaldehyde 623-27-8, Benzene-1,4-dicarbaldehyde 643-79-8, 1,2-Phthalaldehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde 932-95-6, 2,5-Thiophenedicarboxaldehyde 1003-29-8, Pyrrol-2-aldehyde 1192-58-1, N-Methylpyrrol-2-aldehyde 1194-98-5, 2,5-Dihydroxybenzaldehyde 1952-37-0, 4-[[[(2-Hydroxyethyl)imino]methyl]phenol 1952-38-1, 2-[[[(2-Hydroxyethyl)imino]methyl]phenol 1971-81-9, 4-Dimethylamino-1-naphthaldehyde 2144-08-3, 2,3,4-Trihydroxybenzaldehyde 2233-18-3, 3,5-Dimethyl-4-hydroxybenzaldehyde 4771-49-7, 6-Methylindole-3-carboxaldehyde 5392-12-1, 2-Methoxy-1-naphthaldehyde 6203-18-5, 4-Dimethylaminozimtaldehyde 6625-79-2 7311-34-4, 3,5-Dimethoxybenzaldehyde 7570-45-8, N-Ethylcarbazol-3-aldehyde 7770-45-8, 4-Hydroxy-1-naphthaldehyde 10031-82-0, 4-Ethoxybenzaldehyde 13677-79-7, 3,4,5-Trihydroxybenzaldehyde 15941-84-1 15971-29-6, 4-Methoxy-1-naphthaldehyde 16560-44-4 16843-24-6, 2-Chloro-1-methylquinolinium-tetrafluoroborate 17065-03-1, 4-[[[(2-Hydroxyphenyl)imino]methyl]phenol 17422-74-1, Chromon-3-carboxaldehyde 17754-90-4, 4-Diethylamino-2-hydroxybenzaldehyde 18095-64-2D, salts 18278-34-7, 4-Hydroxy-2-methoxybenzaldehyde 20921-29-3 26091-47-4 27976-81-4, N,N-Dimethyl-4-[[[(2-hydroxyethyl)imino]methyl]aniline 29865-90-5, 3,4-Dimethoxy-5-hydroxybenzaldehyde 42059-81-4 45994-10-3D, salts 45998-43-4D, salts 46878-55-1D, salts 50440-51-2D, salts 64073-92-3, 2,6-Dimethoxy-4-[[[(2-hydroxyphenyl)imino]methyl]phenol 66820-52-8 68282-53-1,

4-Methyl-5-imidazolcarboxaldehyde 70365-18-3, 4-[[[(2-Hydroxyethyl)imino]methyl]-2-methoxyphenol 84562-48-1,  
4-Dimethylamino-2-methoxybenzaldehyde 88851-29-0 90134-10-4,  
4-Dibutylaminobenzaldehyde 90920-74-4 93439-34-0 100980-82-3  
106001-58-5, 4-Diethylamino-3-methoxybenzaldehyde 110335-17-6  
116209-27-9, 3-Methoxy-4-(1-pyrrolidinyl)benzaldehyde 117125-17-4D,  
4-Chloro-1-ethylquinoline, salts 119658-57-0 125187-46-4 134822-76-7  
187030-52-0, 5-[4-(Diethylamino)phenyl]-2,4-pentadienal 198829-37-7D,  
salts 198829-39-9D, salts 198829-40-2 373390-26-2,  
5-[[[(2-Hydroxyethyl)imino]methyl]-2-methoxyphenol 373390-27-3,  
2,6-Dimethoxy-4-[[[(2-hydroxyethyl)imino]methyl]phenol 373390-28-4,  
1,2-Dihydroxy-4-[[[(2-hydroxyethyl)imino]methyl]benzene 373390-29-5,  
1,2-Dihydroxy-3-[[[(2-hydroxyethyl)imino]methyl]benzene 373390-30-8,  
4-[[[(3-Hydroxypropyl)imino]methyl]phenol 373390-31-9,  
2,6-Dimethoxy-4-[[[(3-Hydroxypropyl)imino]methyl]phenol 373390-32-0,  
4-[[[(2,3-Dihydroxypropyl)imino]methyl]phenol 373390-33-1,  
2,6-Dimethoxy-4-[[[(2,3-dihydroxypropyl)imino]methyl]phenol 373390-34-2  
373390-35-3 373390-36-4, 4-[[[(2-Hydroxy-2-phenylethyl)imino]methyl]phenol 373390-38-6 373390-42-2 373390-43-3 373390-44-4 373390-47-7,  
1,2,3-Trihydroxy-4-[[[(2-hydroxyethyl)imino]methyl]benzene 373390-48-8  
384340-47-0 473437-36-4, 2,6-Dimethoxy-4-[[[(1-phenyl-2-hydroxyethyl)imino]methyl]phenol 473437-41-1 479541-80-5 479541-81-6  
479541-82-7 479541-83-8 479541-84-9 479541-85-0 479541-86-1  
479541-87-2 479541-88-3 479541-89-4 479541-90-7 479541-91-8  
479541-92-9 479541-93-0 479541-94-1 479541-95-2 479541-96-3  
479541-97-4 479541-98-5 479541-99-6 479542-00-2 479542-01-3  
479542-02-4D, salts 479542-03-5D, salts 479542-04-6D, salts  
479542-05-7D, salts 479542-06-8D, salts 479542-07-9D, salts  
479542-08-0D, salts 479542-09-1D, salts 479542-10-4D, salts  
479542-11-5D, salts 479542-12-6D, salts 479542-13-7D, salts  
479542-14-8D, salts 479542-15-9 479542-16-0 479542-17-1  
479542-18-2 479542-19-3 479542-20-6 479542-21-7 479542-23-9  
479542-24-0 479542-25-1 479542-26-2 479542-27-3 479542-28-4

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)

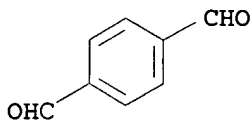
IT 623-27-8, Benzene-1,4-dicarbaldehyde 643-79-8,  
1,2-Phthalaldehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde  
932-95-6, 2,5-Thiophenedicarboxaldehyde

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(direct hair dyes composed of 1-benzopyrane-derivs. and an electrophilic substance)

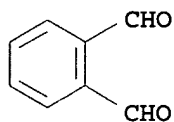
RN 623-27-8 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



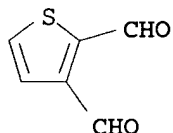
RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



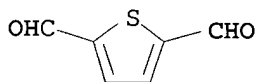
RN 932-41-2 HCAPLUS

CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 932-95-6 HCAPLUS

CN 2,5-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:811804 HCAPLUS

DN 137:325330

TI Preparation of 5-aryl-1,3,3-trimethyl-2-methylen-indoles and their iminium salts for the temporary dyeing of hair fibers

IN Sauter, Guido; Braun, Hans-Juergen; Reichlin, Nadia

PA Wella A.-G., Germany

SO Ger. Offen., 40 pp.

CODEN: GWXXBX

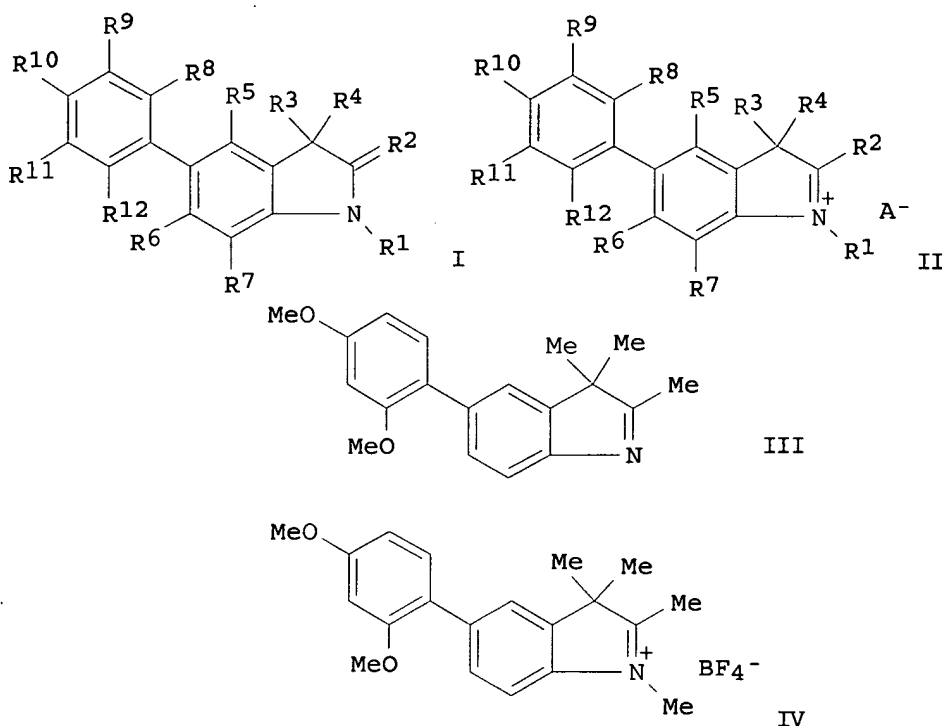
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10119204	A1	20021024	DE 2001-10119204	20010419
	WO 2002085854	A1	20021031	WO 2002-EP706	20020124
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1280773	A1	20030205	EP 2002-727315	20020124
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2002005040	A	20030429	BR 2002-5040	20020124

JP 2004519521	T2	20040702	JP 2002-583381	20020124
US 2003213071	A1	20031120	US 2002-297369	20021204
PRAI DE 2001-10119204	A	20010419		
WO 2002-EP706	W	20020124		
OS CASREACT 137:325330;	MARPAT 137:325330			
GI				



AB Title compds. I and II [R1 = alkyl, hydroxyalkyl, polyhydroxyalkyl, etc.; R2 = CHR; R = H, alkyl; R3, R4 = alkyl, (CH<sub>2</sub>)<sub>n</sub>Rc, (CH<sub>2</sub>)<sub>n</sub>CORc, etc.; n = 1-3; Rc = H, (un)substituted aromatic carbocycle, aromatic heterocycle, etc.; R5-R12 = H, alkyl, hydroxyalkyl, etc.; A- = anion of inorg. or organic acid] were prepared. The invention relates to hair dye kits containing 2-component hair dye compns. (A1 and A2) and a sulfite reductive decolorizing agent. Component A2 comprises of at least 1 carbonyl compd. and component A1 comprises of at least one indoline I or one 3H-indolium II deriv. For example, methylation indole of III, e.g., prepd. from 5-bromo-2,3,3-trimethyl-3H-indole and 2,4-dimethoxyphenylboronic acid, with trimethyloxonium tetrafluoroborate afforded indolium IV in 55% yield. In coloration studies of bleached hair, 7-examples of compds. II (A1) in combination with 4-carbonyl compds. (A2) resulted in a range of hair coloring, e.g., a prepn. of indolium IV and 4-hydroxy-3-methoxybenzaldehyde produced a red color and white after reductive decolorization.

IC ICM C07D209-08  
ICS C07D209-54; C07D405-04; C07F005-04; C09B007-00; D06P005-06

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))  
Section cross-reference(s): 62

ST indolium prepn hair dye carbonyl bleaching sulfite decolorization; indole



prepn hair dye carbonyl bleaching sulfite decolorization

IT Sulfites  
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT  
(Reactant or reagent); USES (Uses)  
(decolorizing agent; preparation of methyleneindoles and their iminium salts  
for the temporary dyeing of hair fibers)

IT Hair preparations  
(dyes; preparation of methyleneindoles and their iminium salts for the  
temporary dyeing of hair fibers)

IT Decolorizing agents  
Human  
(preparation of methyleneindoles and their iminium salts for the temporary  
dyeing of hair fibers)

IT 58-27-5, 2-Methyl-1,4-naphthodione 86-51-1, 2,3-Dimethoxybenzaldehyde  
90-02-8, 2-Hydroxybenzaldehyde, reactions 93-02-7, 2,5-  
Dimethoxybenzaldehyde 95-01-2, 2,4-Dihydroxybenzaldehyde 98-03-3,  
2-Thiophenecarboxaldehyde 99-61-6, 3-Nitrobenzaldehyde 100-10-7,  
4-Dimethylaminobenzaldehyde 120-14-9, 3,4-Dimethoxybenzaldehyde  
121-32-4, 3-Ethoxy-4-hydroxybenzaldehyde 121-33-5, 4-Hydroxy-3-  
methoxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 134-96-3,  
3,5-Dimethoxy-4-hydroxybenzaldehyde 139-85-5, 3,4-Dihydroxybenzaldehyde  
148-53-8, 2-Hydroxy-3-methoxybenzaldehyde 458-36-6, 4-Hydroxy-3-  
methoxyzimtaldehyde 487-70-7, 2,4,6-Trihydroxybenzaldehyde 487-89-8,  
1H-Indole-3-carboxaldehyde 498-62-4, Thiophen-3-aldehyde 552-89-6,  
2-Nitrobenzaldehyde 555-16-8, 4-Nitrobenzaldehyde, reactions 613-45-6,  
2,4-Dimethoxybenzaldehyde 619-66-9, 4-Carboxybenzaldehyde 620-02-0,  
5-Methylfurfural 621-59-0, 3-Hydroxy-4-methoxybenzaldehyde  
623-27-8, Benzene-1,4-dicarbaldehyde 643-79-8,  
1,2-Phthalaldehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde  
932-95-6, 2,5-Thiophenedicarboxaldehyde 1003-29-8,  
Pyrrol-2-aldehyde 1192-58-1, N-Methylpyrrol-2-aldehyde 1194-98-5,  
2,5-Dihydroxybenzaldehyde 1952-37-0, 4-[[[(2-  
Hydroxyethyl)imino]methyl]phenol 1952-38-1, 2-[[[(2-  
Hydroxyethyl)imino]methyl]phenol 1971-81-9, 4-Dimethylamino-1-  
naphthaldehyde 2144-08-3, 2,3,4-Trihydroxybenzaldehyde 2233-18-3,  
3,5-Dimethyl-4-hydroxybenzaldehyde 4771-49-7, 6-Methylindol-3-  
carboxaldehyde 5392-12-1, 2-Methoxy-1-naphthaldehyde 6203-18-5,  
4-Dimethylaminozimtaldehyde 7311-34-4, 3,5-Dimethoxybenzaldehyde  
7570-45-8, N-Ethylcarbazol-3-aldehyde 7770-45-8, 4-Hydroxy-1-  
naphthaldehyde 10031-82-0, 4-Ethoxybenzaldehyde 13677-79-7,  
3,4,5-Trihydroxybenzaldehyde 15971-29-6, 4-Methoxy-1-naphthaldehyde  
17065-03-1, 4-[[[(2-Hydroxyphenyl)imino]methyl]phenol 17422-74-1,  
Chromon-3-carboxaldehyde 17754-90-4, 4-Diethylamino-2-  
hydroxybenzaldehyde 18278-34-7, 4-Hydroxy-2-methoxybenzaldehyde  
27976-81-4, N,N-Dimethyl-4-[[[(2-hydroxyethyl)imino]methyl]aniline  
29865-90-5, 3,4-Dimethoxy-5-hydroxybenzaldehyde 42059-81-4 64073-92-3,  
2,6-Dimethoxy-4-[[[(2-hydroxyphenyl)imino]methyl]phenol 68282-53-1,  
4-Methylimidazol-5-carboxaldehyde 69155-75-5, 6-Hydroxychromon-3-  
carboxaldehyde 70365-18-3, 4-[[[(2-Hydroxyethyl)imino]methyl]-2-  
methoxyphenol 84562-48-1, 4-Dimethylamino-2-methoxybenzaldehyde  
87345-53-7, 3,5-Dimethoxy-4-hydroxyzimtaldehyde 90134-10-4,  
4-Dibutylaminobenzaldehyde 100980-82-3 106001-58-5,  
4-Diethylamino-3-methoxybenzaldehyde 116209-27-9, 3-Methoxy-4-(1-  
pyrrolidinyl)benzaldehyde 187030-52-0, 5-[4-(Diethylamino)phenyl]-2,4-  
pentadienal 373390-26-2, 5-[[[(2-Hydroxyethyl)imino]methyl]-2-  
methoxyphenol 373390-27-3, 2,6-Dimethoxy-4-[[[(2-  
hydroxyethyl)imino]methyl]phenol 373390-28-4,  
1,2-Dihydroxy-4-[[[(2-hydroxyethyl)imino]methyl]benzene 373390-29-5,  
1,2-Dihydroxy-3-[[[(2-hydroxyethyl)imino]methyl]benzene 373390-30-8,  
4-[[[(3-Hydroxypropyl)imino]methyl]phenol 373390-31-9,

2,6-Dimethoxy-4-[[ (3-Hydroxypropyl) imino] methyl] phenol 373390-32-0,  
4-[[ (2,3-Dihydroxypropyl) imino] methyl] phenol 373390-33-1,  
2,6-Dimethoxy-4-[[ (2,3-dihydroxypropyl) imino] methyl] phenol 373390-34-2,  
2-[(4-Hydroxybenzylidene) amino] propan-1,3-diol 373390-35-3,  
2-[(4-Hydroxy-3,5-dimethoxybenzylidene) amino] propan-1,3-diol  
373390-36-4, 4-[[ (2-Hydroxy-2-phenylethyl) imino] methyl] phenol  
373390-38-6 373390-39-7, 2-[(4-Dimethylaminonaphthalen-1-  
ylmethylene) amino] ethanol 373390-42-2 373390-43-3,  
2-[(4-Hydroxy-3,5-dimethoxybenzylidene) amino] -3-(imidazol-4-yl) propanoic  
acid 373390-44-4, 2-[(4-Hydroxybenzylidene) amino] -3-(imidazol-4-  
yl) propanoic acid 373390-46-6, 2-[(4-Hydroxybenzylidene) amino] -3-(indol-  
3-yl) propanoic acid 373390-47-7, 1,2,3-Trihydroxy-4-[[ (2-  
hydroxyethyl) imino] methyl] benzene 373390-48-8, 1,2,3-Trihydroxy-4-[[ (2-  
hydroxyethyl) imino] methyl] benzene 473437-36-4, 2,6-Dimethoxy-4-[[ (1-  
phenyl-2-hydroxyethyl) imino] methyl] phenol 473437-41-1,  
2-[(4-Hydroxy-3,5-dimethoxybenzylidene) amino] -3-(indol-3-yl) propanoic acid  
473437-43-3, 1,2,3-Trihydroxy-5-[[ (2-hydroxyethyl) imino] methyl] benzene  
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT  
(Reactant or reagent); USES (Uses)

(preparation of methyleneindoles and their iminium salts for the temporary  
dyeing of hair fibers)

IT 98-80-6, Benzenboronic acid 106-38-7, 4-Bromotoluene 420-37-1,  
Trimethyloxoniumtetrafluoroborate 1423-27-4, 2-  
Trifluoromethylphenylboronic acid 6165-69-1, 3-Thiophenboronic acid  
13922-41-3, Naphthalene-1-boronic acid 54136-24-2, 5-Bromo-2,3,3-  
trimethyl-3H-indole 73183-34-3 94839-07-3, 3,4-  
Methylenedioxyphenylboronic acid 133730-34-4, 2,4-Dimethoxyphenylboronic  
acid 201733-56-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of methyleneindoles and their iminium salts for the temporary  
dyeing of hair fibers)

IT 59876-87-8P 294655-87-1P, 5-Phenyl-2,3,3-trimethyl-3H-indole  
473436-97-4P 473436-98-5P 473436-99-6P 473437-00-2P 473437-02-4P  
473437-03-5P 473437-04-6P 473437-05-7P 473437-06-8P 473437-07-9P  
473437-08-0P 473437-09-1P 473437-10-4P 473437-11-5P 473437-12-6P  
473437-13-7P 473437-14-8P 473437-15-9P 473437-17-1P 473437-18-2P,  
5-(2,4-Dimethoxyphenyl)-2,3,3-trimethyl-3H-indole 473437-20-6P  
473437-21-7P, 5-(1,3-Benzodioxol-5-yl)-2,3,3-trimethyl-3H-indole  
473437-23-9P 473437-24-0P, 5-[2-(Trifluoromethyl)phenyl]-2,3,3-trimethyl-  
3H-indole 473437-25-1P 473437-26-2P, 5-(Thiophen-3-yl)-2,3,3-trimethyl-  
3H-indole 473437-27-3P 473437-29-5P 473437-30-8P,  
2,3,3-Trimethyl-5-p-tolyl-3H-indole 473437-32-0P 473437-33-1P,  
2,3,3-Trimethyl-5-naphthalen-1-yl-3H-indole 473437-34-2P,  
2,3,3-Trimethyl-5-(4,4,5,5-tetramethyl-[1,3,2]dioxaborolan-2-yl)-3H-indole  
473437-35-3P, 5-(5,5-Dimethyl-[1,3,2]dioxaborinan-2-yl)-2,3,3-trimethyl-3H-  
indole

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)

(product; preparation of methyleneindoles and their iminium salts for the  
temporary dyeing of hair fibers)

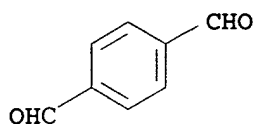
IT 623-27-8, Benzene-1,4-dicarbaldehyde 643-79-8,  
1,2-Phthalaldehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde  
932-95-6, 2,5-Thiophenedicarboxaldehyde

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT  
(Reactant or reagent); USES (Uses)

(preparation of methyleneindoles and their iminium salts for the temporary  
dyeing of hair fibers)

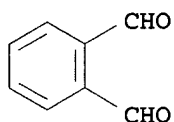
RN 623-27-8 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



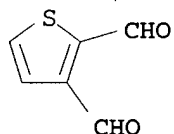
RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



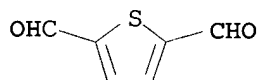
RN 932-41-2 HCAPLUS

CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 932-95-6 HCAPLUS

CN 2,5-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



L83 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:428661 HCAPLUS

DN 137:10703

TI Immobilization of active agents on hair fibers

IN Busch, Peter; Gassenmeier, Thomas Otto; Naumann, Frank; Huchel, Ursula

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002043675	A2	20020606	WO 2001-EP13965	20011129
	WO 2002043675	A3	20021205		
	W: AU, BG, BR, BY, CA, CN, CZ, DZ, HU, ID, IL, IN, JP, KR, MX, NO, NZ, PL, RO, RU, SG, SI, SK, UA, US, UZ, VN, YU, ZA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	DE 10059749	A1	20020620	DE 2000-10059749	20001201
	AU 2002029578	A5	20020611	AU 2002-29578	20011129
	EP 1337229	A2	20030827	EP 2001-990457	20011129

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

PRAI DE 2000-10059749 A 20001201  
WO 2001-EP13965 W 20011129

OS MARPAT 137:10703

AB The invention relates to a method for immobilizing active agents on fibers, preferably hair, to a composition comprising active components (e.g., carbohydrates such as aldoses, hexoses,) and to the use for restructuring, restoring and pos. influencing hair fiber characteristics such as volume, shine, hold, body, tactility, electrostatic charge and resistance to heat, UV and IR radiation. Thus, a formulation contained 4-aminobutylgluconic acid amide 2.0, cetearyl alc. 5.5, Ceteareth-20 2.0, sodium laureth sulfate 1.5, Polyquaternium-10 0.8, cocoamidopropylbetaine 0.5, ammonium hydroxide qs, and water to 100%. This was mixed with a second formulation containing citronellal 1.5, acrylate copolymer 0.5, sodium laureth sulfate 0.3, and citric acid (buffer) qs and water to 100%.

IC ICM A61K007-00

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 33, 40

ST immobilization carbohydrate amine hair fiber prepn

IT Carbohydrates, biological studies

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(aldonic acids, lactones; immobilization of active agents on hair fibers)

IT Carbohydrates, biological studies

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(aldonic acids; immobilization of active agents on hair fibers)

IT Glycosides

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(amino; immobilization of active agents on hair fibers)

IT Fibers

RL: TEM (Technical or engineered material use); USES (Uses)

(cellulosic; immobilization of active agents on hair fibers)

IT Fur

Hair

Hair preparations

Human

Immobilization, molecular or cellular

Shampoos

Silk

Skin

Sunscreens

Wool

(immobilization of active agents on hair fibers)

IT Aldehydes, biological studies

Amino acids, biological studies

Carbohydrates, biological studies

Carbonyl compounds (organic), biological studies

Epoxides

Glycosides

Hexoses

Ketones, biological studies

Lactones

Pentoses

Tocopherols

Vitamins

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL

(Biological study); USES (Uses)  
 (immobilization of active agents on hair fibers)

IT Synthetic fibers  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (immobilization of active agents on hair fibers)

IT Amines, biological studies  
 RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (primary; immobilization of active agents on hair fibers)

IT Amines, biological studies  
 RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (secondary; immobilization of active agents on hair fibers)

IT 230305-46-1P 433702-67-1P  
 RL: COS (Cosmetic use); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (immobilization of active agents on hair fibers)

IT 90-80-2 110-60-1, 1,4-Butanediamine 524-36-7  
 RL: COS (Cosmetic use); RCT (Reactant); TEM (Technical or engineered material use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
 (immobilization of active agents on hair fibers)

IT 433693-22-2P 433702-81-9P 433702-83-1P  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (immobilization of active agents on hair fibers)

IT 50-69-1, Ribose 50-81-7, Ascorbic acid, biological studies 52-90-4, L-Cysteine, biological studies 54-96-6, 3,4-Pyridinediamine 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 56-89-3, L-Cystine, biological studies 58-85-5, Biotin 58-86-6, Xylose, biological studies 59-23-4, Galactose, biological studies 59-30-3, Folic acid, biological studies 59-67-6, Nicotinic acid, biological studies 60-18-4, L-Tyrosine, biological studies 60-33-3, Linoleic acid, biological studies 61-90-5, L-Leucine, biological studies 63-42-3, Lactose 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 64-04-0, Benzenethanamine 65-42-9, Lyxose 66-72-8, Pyridoxal 68-26-8, Retinol 69-79-4, Maltose 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 74-79-3, L-Arginine, biological studies 75-64-9, biological studies 76-22-2, Camphor 78-81-9 78-90-0, 1,2-Propanediamine 78-96-6 79-83-4, Pantothenic acid 83-88-5, Riboflavin, biological studies 85-87-0 95-54-5, 1,2-Benzenediamine, biological studies 96-15-1 98-86-2, Acetophenone, biological studies 100-46-9, Benzenemethanamine, biological studies 100-52-7, Benzaldehyde, biological studies 101-77-9 104-50-7,  $\gamma$ -Octanolactone 104-55-2, Cinnamaldehyde 104-61-0,  $\gamma$ -Nonanolactone 104-67-6,  $\gamma$ -Undecanolactone 104-98-3 106-50-3, 1,4-Benzenediamine, biological studies 106-51-4, 2,5-Cyclohexadiene-1,4-dione, biological studies 107-15-3, 1,2-Ethanediamine, biological studies 107-85-7 108-09-8 108-29-2,  $\gamma$ -Valerolactone 108-45-2, 1,3-Benzenediamine, biological studies 108-91-8, Cyclohexanamine, biological studies 109-49-9, 5-Hexen-2-one 109-73-9, 1-Butanamine, biological studies 109-76-2, 1,3-Propanediamine 110-58-7, 1-Pentanamine 110-62-3,

Pentanal 111-26-2, 1-Hexanamine 111-68-2, 1-Heptanamine 111-86-4,  
 1-Octanamine 112-20-9, 1-Nonanamine 118-56-9 118-60-5 123-82-0,  
 2-Heptanamine 124-09-4, 1,6-Hexanediamine, biological studies  
 124-22-1, 1-Dodecanamine 131-57-7 136-44-7 139-65-1 141-43-5,  
 biological studies 141-86-6, 2,6-Pyridinediamine 147-81-9, Arabinose  
 147-85-3, L-Proline, biological studies 150-13-0 156-81-0,  
 2,4-Pyrimidinediamine 156-87-6 373-44-4, 1,8-Octanediamine 452-58-4,  
 2,3-Pyridinediamine 462-94-2, 1,5-Pentanediamine 488-43-7 504-20-1,  
 Phorone 506-32-1, Arachidonic acid 528-50-7, Cellobiose 534-03-2,  
 Serinol 554-91-6, Gentiobiose 590-88-5, 1,3-Butanediamine 594-39-8  
 597-12-6, Melezitose 598-74-3 616-24-0, 3-Pentanamine 618-65-5,  
 Helicin 621-95-4 621-96-5 625-33-2, 3-Penten-2-one 643-79-8  
 , 1,2-Benzenedicarboxaldehyde 646-19-5, 1,7-Heptanediamine 646-24-2,  
 1,9-Nonanediamine 646-25-3, 1,10-Decanediamine 694-83-7,  
 1,2-Cyclohexanediamine 695-06-7,  $\gamma$ -Caprolactone 704-00-7  
 706-14-9,  $\gamma$ -Decanolactone 722-27-0 787-69-9 941-98-0  
 1003-03-8, Cyclopentanamine 1009-14-9, Valerophenone 1641-17-4  
 1664-40-0 1758-51-6, Erythrose 2016-42-4, 1-Tetradecanamine  
 2016-57-1, 1-Decanamine 2038-57-5, Benzenepropanamine 2045-79-6  
 2077-90-9 2152-76-3, Idose 2434-56-2, 4,6-Pyrimidinediamine  
 2508-29-4 2550-26-7, Benzylacetone 2783-17-7, 1,12-Dodecanediamine  
 2869-34-3, 1-Tridecanamine 3114-70-3, 1,4-Cyclohexanediamine  
 3218-02-8, Cyclohexanemethanamine 3240-09-3 3416-24-8 3458-28-4,  
 Mannose 3796-70-1, Geranylacetone 3879-26-3, Nerylacetone 4048-33-3  
 4164-39-0, 1,4-Piperazinedicarboxaldehyde 4426-48-6, 1,2-Butanediamine  
 4795-29-3 5166-53-0 5332-73-0 5336-08-3 5586-73-2 5987-68-8,  
 Altrose 6038-51-3, Allose 6168-72-5 6291-85-6 6322-07-2  
 6556-12-3, Glucuronic acid 6850-57-3 7307-55-3, 1-Undecanamine  
 7328-91-8 7535-00-4, Galactosamine 7568-93-6 10408-15-8  
 13000-25-4, Lactosamine 13214-66-9, Benzenebutanamine 13325-10-5  
 13754-19-3, 4,5-Pyrimidinediamine 14307-02-9 14309-57-0, 3-Nonen-2-one  
 15384-37-9 15673-00-4 16397-19-6 16499-88-0 17675-99-9  
 19163-87-2, Gulose 20818-25-1 25512-62-3, Cyclohexenone 25620-58-0  
 25659-22-7, 4-Hexen-2-one 26301-79-1 26445-06-7,  
 Pyridinecarboxaldehyde 26912-67-4, Aminocyclohexanol 27154-67-2,  
 Pentanone 27457-18-7, Octanone 28292-42-4, 3-Heptanamine 29299-43-2,  
 Heptanone 29884-64-8, Threose 30077-17-9, Talose 30637-87-7,  
 Hexanone 32780-06-6 33401-87-5, Panose 37806-29-4 40200-69-9  
 40898-95-1 40898-96-2 52813-63-5 60046-25-5 63493-28-7,  
 2-Pentanamine 64386-70-5 78687-63-5 89145-04-0, 1H-  
 Pyrrolecarboxaldehyde 101313-53-5 167254-67-3 433695-59-1  
 433702-65-9 433702-75-1

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL  
 (Biological study); USES (Uses)

(immobilization of active agents on hair fibers)

IT 50-99-7, Glucose, reactions 106-23-0 4318-76-7, 2,5-Pyridinediamine

RL: RCT (Reactant); RACT (Reactant or reagent)

(immobilization of active agents on hair fibers)

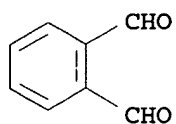
IT 643-79-8, 1,2-Benzenedicarboxaldehyde

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL  
 (Biological study); USES (Uses)

(immobilization of active agents on hair fibers)

RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



L83 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:833037 HCAPLUS

DN 135:376487

TI Temporary hair dyes containing enamines

IN Javet, Manuela; Mueller, Catherine

PA Wella Aktiengesellschaft, Germany

SO PCT Int. Appl., 51 pp.

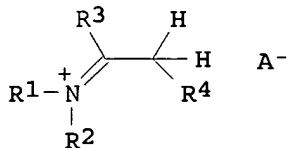
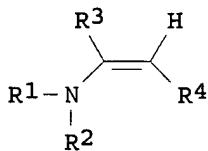
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001085111	A1	20011115	WO 2001-EP102684	20010309
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 10022743	A1	20011122	DE 2000-10022743	20000510
	AU 2001058268	A5	20011120	AU 2001-58268	20010309
	BR 2001006332	A	20020326	BR 2001-6332	20010309
	EP 1194118	A1	20020410	EP 2001-931507	20010309
	EP 1194118	B1	20040915		
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2003532661	T2	20031105	JP 2001-581766	20010309
	AT 275922	E	20041015	AT 2001-931507	20010309
	ES 2228857	T3	20050416	ES 2001-1931507	20010309
	US 2003101520	A1	20030605	US 2001-19204	20011220
	US 6740128	B2	20040525		
PRAI	DE 2000-10022743	A	20000510		
	WO 2001-EP2684	W	20010309		
OS	MARPAT 135:376487				
GI					



AB The invention relates to an agent for coloring fibers, especially hair, which is prepared before use by mixing an acidic component (A1), which contains at

least one enamine of formula (I) or its acid addition salt (II), with an alkaline component (A2), which contains at least one carbonyl compound and at least one primary amine. The invention also relates to a method for temporarily coloring hair according to which the coloring obtained by using the coloring agent is removed at any time by means of a decolorizing agent that contains sulfite. Thus a hair dye cream that resulted intensive red color contained (g): as component A1 1,2,3,3-tetramethyl-3H-indolium hydrogen sulfate 3.13 ; as A2 4-hydroxy-3-methoxy-benzaldehyde 1.76 ; methanolamine to pH 9.6; 6-O-palmitoyl-L-ascorbic acid 0.3; cetylstearylalc. 12.0; lauryl ethersulfate (12% ag. solution) 10.0; ethanol 23.0; water to 100.

IC ICM A61K007-13  
 CC 62-2 (Essential Oils and Cosmetics)  
 ST hair dye temporary enamine  
 IT Hair preparations  
     (dyes; temporary hair dyes containing enamines)  
 IT Amines, biological studies  
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
     (Uses)  
     (primary; temporary hair dyes containing enamines)  
 IT Decolorizing agents  
     Temperature  
     pH  
     (temporary hair dyes containing enamines)  
 IT Carbonyl compounds (organic), biological studies  
     Enamines  
     Sulfites  
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
     (Uses)  
     (temporary hair dyes containing enamines)  
 IT 58-27-5, 2-Methyl-1,4-naphthoquinone 74-79-3, L-Arginine, biological studies 78-96-6, Isopropanolamine 86-51-1, 2,3-Dimethoxybenzaldehyde 90-02-8, 2-Hydroxybenzaldehyde, biological studies 93-02-7, 2,5-Dimethoxybenzaldehyde 95-01-2, 2,4-Dihydroxybenzaldehyde 98-03-3, 2-Thiophenecarboxaldehyde 99-61-6, 3-Nitrobenzaldehyde 100-10-7, 4-Dimethylaminobenzaldehyde 118-12-7, 1,3,3-Trimethyl-2-methylene-indoline 120-14-9, 3,4-Dimethoxybenzaldehyde 121-32-4, 3-Ethoxy-4-hydroxybenzaldehyde 121-33-5, 4-Hydroxy-3-methoxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 134-96-3, 3,5-Dimethoxy-4-hydroxybenzaldehyde 139-85-5, 3,4-Dihydroxybenzaldehyde 148-53-8, 2-Hydroxy-3-methoxybenzaldehyde 156-87-6, 3-Amino-1-propanol 458-36-6, 4-Hydroxy-3-methoxycinnamaldehyde 487-70-7, 2,4,6-Trihydroxybenzaldehyde 487-89-8, Indole-3-carbaldehyde 498-62-4, 3-Thiophenecarboxaldehyde 552-89-6, 2-Nitrobenzaldehyde 555-16-8, 4-Nitrobenzaldehyde, biological studies 613-45-6, 2,4-Dimethoxybenzaldehyde 619-66-9, 4-Carboxybenzaldehyde 620-02-0, 5-Methylfurfural 621-59-0, 3-Hydroxy-4-methoxybenzaldehyde 623-27-8, Benzene-1,4-dicarb-aldehyde 643-79-8, 1,2-Benzenedicarboxaldehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde 932-95-6, 2,5-Thiophene-dicarboxaldehyde 1003-29-8, Pyrrol-2-aldehyde 1192-58-1 1194-98-5, 2,5-Dihydroxybenzaldehyde 1971-81-9, 4-Dimethylamino-1-naphthaldehyde 2144-08-3, 2,3,4-Trihydroxybenzaldehyde 2233-18-3, 3,5-Dimethyl-4-hydroxybenzaldehyde 3088-27-5, Methanolamine 4771-49-7, 6-Methylindole-3-carboxaldehyde 5392-12-1, 2-Methoxy-1-naphthaldehyde 6203-18-5, 4-Dimethylaminocinnamaldehyde 6872-05-5, 5-Amino-1,3,3-trimethyl-2-methylene-indoline 6872-17-9, 5-Chloro-1,3,3-trimethyl-2-methylene-indoline 7311-34-4, 3,5-Dimethoxybenzaldehyde 7570-45-8, N-Ethylcarbazole-3-carboxaldehyde 7770-45-8, 4-Hydroxy-1-naphthaldehyde 10031-82-0, 4-Ethoxybenzaldehyde 13677-79-7, 3,4,5-



Trihydroxybenzaldehyde 15971-29-6, 4-Methoxy-1-naphthaldehyde  
17422-74-1, Chromone-3-carboxaldehyde 17754-90-4, 4-Diethylamino-2-  
hydroxybenzaldehyde 18278-34-7, 4-Hydroxy-2-methoxybenzaldehyde  
25082-84-2 27344-28-1 27344-29-2 29865-90-5, 3,4-Dimethoxy-5-  
hydroxybenzaldehyde 35976-46-6, 5-Methoxy-1,3,3-trimethyl-2-methylene-  
indoline 36429-28-4 39578-87-5, 1,3,3,5-Tetramethyl-2-methylene-  
indoline 42059-81-4 68282-53-1, 4-Methyl-5-imidazole-carboxaldehyde  
84562-48-1, 4-Dimethylamino-2-methoxybenzaldehyde 87345-53-7,  
3,5-Dimethoxy-4-hydroxycinnamaldehyde 90134-10-4, 4-  
Dibutylaminobenzaldehyde 100980-82-3 106001-58-5, 4-Diethylamino-3-  
methoxybenzaldehyde 116209-27-9, 3-Methoxy-4-(1-  
pyrrolidinyl)benzaldehyde 120420-70-4 126526-42-9 134822-76-7  
151249-39-7 187030-52-0, 5-[4-(Diethylamino)phenyl]-2,4-pentadienal  
189685-50-5 274696-30-9 344928-74-1 357397-32-1 357397-33-2  
357397-34-3 357397-35-4 357397-36-5 357397-37-6 357397-39-8  
357397-42-3 357397-44-5 357397-45-6 357397-46-7 373390-40-0  
373390-41-1

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(temporary hair dyes containing enamines)

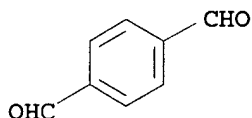
IT 623-27-8, Benzene-1,4-dicarb-aldehyde 643-79-8,  
1,2-Benzenedicarboxaldehyde 932-41-2, 2,3-Thiophenedicarbox-  
aldehyde 932-95-6, 2,5-Thiophene-dicarboxaldehyde

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(temporary hair dyes containing enamines)

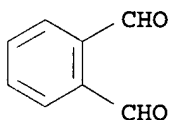
RN 623-27-8 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



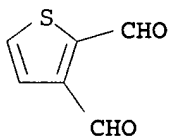
RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



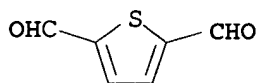
RN 932-41-2 HCAPLUS

CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 932-95-6 HCAPLUS

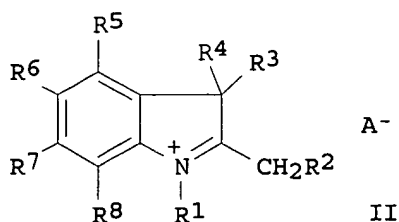
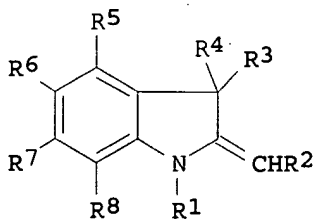
CN 2,5-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 4      THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2001:635862 HCAPLUS  
DN 135:215740  
TI Hair dye kits comprising indoline/indolium derivatives, carbonyl compounds  
and a decolorizing agent  
IN Sauter, Guido; Braun, Hans-Juergen; Reichlin, Nadia  
PA Wella Aktiengesellschaft, Germany  
SO PCT Int. Appl., 81 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001062219	A1	20010830	WO 2001-EP821	20010125
	W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IN, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	DE 10007948	A1	20010906	DE 2000-10007948	20000222
	AU 2001028495	A5	20010903	AU 2001-28495	20010125
	BR 2001004590	A	20020108	BR 2001-4590	20010125
	EP 1227786	A1	20020807	EP 2001-949088	20010125
	EP 1227786	B1	20050824		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2003523375	T2	20030805	JP 2001-561286	20010125
	US 2003079301	A1	20030501	US 2001-959112	20011017
	US 6652601	B2	20031125		
PRAI	DE 2000-10007948	A	20000222		
	WO 2001-EP821	W	20010125		
OS	MARPAT 135:215740				
GI					



- AB The invention relates to hair dye kits containing 2-component hair-dye compns. (A1 and A2) and a reductive decolorizing agent; upon usage A1 and A2 are mixed. The component A2 comprises at least 1 carbonyl compound, and component A1 comprises at least 1 indoline derivative (I), or 1 3H-indolium derivative (II), R groups and A- are defined. Thus, the component A1 contained (g): 1,2,3,3,5-pentamethyl-3H-indolium iodide 0.30; lauryl ether sulfate (28% aqueous solution) 1, ethanol 2, water to 10%. The component A2 included (g): 3,5-dimethoxy-4-hydroxybenzaldehyde 0.17, lauryl ether sulfate (28% aqueous solution) 1, ethanol 2, water to 10%. By mixing 1 g of each component a pH of 8.1 was obtained. The dye was applied to bleached hair.
- IC ICM A61K007-13
- CC 62-3 (Essential Oils and Cosmetics)
- ST hair dye indolium carbonyl bleaching sulfite; indoline carbonyl sulfite hair dye
- IT Sulfites
- RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
- (decolorizing agent; hair dye kits comprising indoline/indolium derivs. and carbonyl compds. and decolorizing agent)
- IT Hair preparations
- (dyes; hair dye kits comprising indoline/indolium derivs. and carbonyl compds. and decolorizing agent)
- IT Decolorizing agents
- (hair dye kits comprising indoline/indolium derivs. and carbonyl compds. and decolorizing agent)
- IT Carbonyl compounds (organic), biological studies
- RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
- (hair dye kits comprising indoline/indolium derivs. and carbonyl compds. and decolorizing agent)
- IT 90-02-8, 2-Hydroxybenzaldehyde, biological studies 2233-18-3, 3,5-Dimethyl-4-hydroxybenzaldehyde 7770-45-8, 4-Hydroxy-1-naphthaldehyde 15971-29-6, 4-Methoxy-1-naphthaldehyde 18278-34-7, 4-Hydroxy-2-methoxybenzaldehyde 84562-48-1, 4-Dimethylamino-2-methoxybenzaldehyde
- RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
- (decolorizing agent; hair dye kits comprising indoline/indolium derivs. and carbonyl compds. and decolorizing agent)
- IT 58-27-5, 2-Methyl-1,4-naphthoquinone 86-51-1, 2,3-Dimethoxybenzaldehyde 93-02-7, 2,5-Dimethoxybenzaldehyde 95-01-2, 2,4-Dihydroxybenzaldehyde 98-03-3, 2-Thiophenecarboxaldehyde 99-61-6, 3-Nitrobenzaldehyde 100-10-7, 4-Dimethylaminobenzaldehyde 120-14-9, 3,4-Dimethoxybenzaldehyde 121-32-4, 3-Ethoxy-4-hydroxybenzaldehyde 121-33-5, Vanillin 123-08-0, 4-Hydroxybenzaldehyde 134-96-3, 3,5-Dimethoxy-4-hydroxybenzaldehyde 139-85-5, 3,4-Dihydroxybenzaldehyde 148-53-8, 2-Hydroxy-3-methoxybenzaldehyde 458-36-6 487-70-7, 2,4,6-Trihydroxybenzaldehyde 487-89-8, Indole-3-carbaldehyde 496-15-1D, Indoline, derivs. 498-62-4, 3-Thiophenecarboxaldehyde 552-89-6, 2-Nitrobenzaldehyde 555-16-8, 4-Nitrobenzaldehyde, biological studies 613-45-6, 2,4-Dimethoxybenzaldehyde 619-66-9, 4-Carboxybenzaldehyde 620-02-0, 5-Methylfurfural 621-59-0, Isovanillin 623-27-8, Benzene-1,4-dicarbaldehyde 643-79-8, o-Phthaldialdehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde 932-95-6, 2,5-Thiophenedicarboxaldehyde 1003-29-8, Pyrrol-2-aldehyde 1192-58-1, N-Methylpyrrol-2-aldehyde 1194-98-5, 2,5-Dihydroxybenzaldehyde 1971-81-9, 4-Dimethylamino-1-naphthaldehyde 2144-08-3, 2,3,4-Trihydroxybenzaldehyde 4771-49-7, 6-Methylindole-3-carboxaldehyde 5392-12-1, 2-Methoxy-1-naphthaldehyde 6203-18-5 6872-05-5, 5-Amino-1,3,3-trimethyl-2-methylene-indoline 7311-34-4,

3,5-Dimethoxybenzaldehyde 7570-45-8 7757-83-7, Sodium sulfite  
10031-82-0, 4-Ethoxybenzaldehyde 10196-04-0, Ammonium sulfite  
13677-79-7, 3,4,5-Trihydroxybenzaldehyde 17422-74-1,  
Chromone-3-carboxaldehyde 17754-90-4, 4-Diethylamino-2-  
hydroxybenzaldehyde 27344-28-1 29865-90-5, 3,4-Dimethoxy-5-  
hydroxybenzaldehyde 35976-46-6, 5-Methoxy-1,3,3-trimethyl-2-methylene-  
indoline 36429-28-4 39578-87-5, 1,3,3,5-Tetramethyl-2-methylene-  
indoline 41382-29-0 42059-81-4 54849-44-4 68282-53-1,  
4-Methyl-5-imidazole-carboxaldehyde 87345-53-7 90134-10-4,  
4-Dibutylamino-benzaldehyde 99567-90-5 100980-82-3 106001-58-5,  
4-Diethylamino-3-methoxybenzaldehyde 116209-27-9, 3-Methoxy-4-(1-  
pyrrolidinyl)benzaldehyde 120420-70-4 126526-42-9 134822-76-7  
151249-39-7 187030-52-0, 5-[4-(Diethylamino)phenyl]-2,4-pentadienal  
189685-50-5 357397-32-1 357397-33-2 357397-34-3 357397-35-4  
357397-36-5 357397-37-6 357397-38-7 357397-39-8 357397-41-2  
357397-42-3 357397-43-4 357397-44-5 357397-45-6 357397-46-7  
357397-47-8 357397-48-9 357397-49-0

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(hair dye kits comprising indoline/indolium derivs. and  
carbonyl compds. and decolorizing agent)

IT 36429-14-8P

RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic  
preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant  
or reagent); USES (Uses)

(hair dye kits comprising indoline/indolium derivs. and carbonyl  
compds. and decolorizing agent)

IT 74-88-4, Methyl iodide, reactions 118-12-7, 1,3,3-Trimethyl-2-methylene  
indoline 371-14-2, 4-Fluorophenylhydrazine 420-37-1, Trimethyloxonium  
tetrafluoroborate 539-44-6, p-Tolylhydrazine 563-80-4,  
Isopropylmethylketone 613-85-4, 2,5-Dimethylphenylhydrazine 615-00-9,  
2,4-Dimethylphenylhydrazine 823-76-7, Cyclohexylmethylketone  
3471-32-7, 4-Methoxyphenylhydrazine 63693-65-2, 4-  
Isopropylphenylhydrazine 84401-19-4, 2,3-Dimethylphenylhydrazine  
357397-66-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dye kits comprising indoline/indolium derivs. and carbonyl  
compds. and decolorizing agent)

IT 25981-82-2P 31241-19-7P 41797-88-0P 54136-23-1P 57019-81-5P  
58060-98-3P 59223-23-3P 99385-54-3P 162258-84-6P 211692-73-8P  
357397-51-4P 357397-53-6P 357397-54-7P 357397-56-9P 357397-57-0P  
357397-59-2P 357397-60-5P 357397-61-6P 357397-62-7P 357397-63-8P  
357397-65-0P 357397-68-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(hair dye kits comprising indoline/indolium derivs. and carbonyl  
compds. and decolorizing agent)

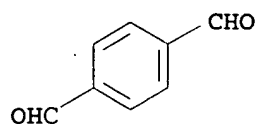
IT 623-27-8, Benzene-1,4-dicarbaldehyde 643-79-8,  
o-Phthaldialdehyde 932-41-2, 2,3-Thiophenedicarboxaldehyde  
932-95-6, 2,5-Thiophenedicarboxaldehyde

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(hair dye kits comprising indoline/indolium derivs. and  
carbonyl compds. and decolorizing agent)

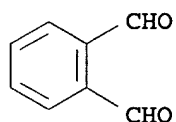
RN 623-27-8 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



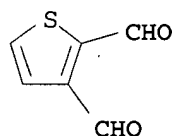
RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



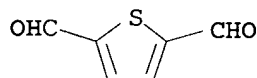
RN 932-41-2 HCAPLUS

CN 2,3-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 932-95-6 HCAPLUS

CN 2,5-Thiophenedicarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 6      THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 15 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:300470 HCAPLUS

DN 134:315876

TI Hair dye compositions containing aromatic aldehydes and quinolinium derivative

IN Javet, Manuela; Mueller, Catherine

PA Wella Aktiengesellschaft, Germany

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001028507	A1	20010426	WO 2000-EP10049	20001012
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				
	HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				
	LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				
	SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,				
	YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 19950404	A1	20010523	DE 1999-19950404	19991020
DE 19950404	B4	20040715		
EP 1143923	A1	20011017	EP 2000-971366	20001012
EP 1143923	B1	20040506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI, LT, LV, FI, RO				
AT 265842	E	20040515	AT 2000-971366	20001012
ES 2220552	T3	20041216	ES 2000-971366	20001012
US 6485529	B1	20021126	US 2001-868551	20010619
PRAI DE 1999-19950404	A	19991020		
WO 2000-EP10049	W	20001012		

OS MARPAT 134:315876

AB A composition for coloring hair fibers contains at least 1 aromatic aldehyde compound, at least 1 quinolinium derivative in addition to an alkanolamine. The invention also relates to a method for coloring fibers using the composition and to a multi-component kit for coloring and subsequently removing the color from fibers. Thus, a hair dye formulation contained 1-Ethyl-2-methylquinolinium chloride 3.45, 4-hydroxy-3-methoxybenzaldehyde 1.76, 6-O-palmitoyl-L-ascorbic acid 0.30, cetylstearyl alc. 12.00, 28% aqueous solution of lauryl ether sulfate 10.00, EtOH 23.0, and water to 100.0 g.

IC ICM A61K007-13  
ICS D06M013-35

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye arom aldehyde quinolinium

IT Alcohols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(amino; hair dye compns. containing aromatic aldehydes and quinolinium derivative)

IT Aldehydes, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(aromatic; hair dye compns. containing aromatic aldehydes and quinolinium derivative)

IT Hair preparations  
(dyes; hair dye compns. containing aromatic aldehydes and quinolinium derivative)

IT 58-27-5, 2-Methyl-1,4-naphthoquinone 86-51-1, 2,3-Dimethoxybenzaldehyde 90-02-8, 2-Hydroxybenzaldehyde, biological studies 93-02-7, 2,5-Dimethoxybenzaldehyde 95-01-2, 2,4-Dihydroxybenzaldehyde 99-61-6, 3-Nitrobenzaldehyde 100-10-7, 4-Dimethylaminobenzaldehyde 120-14-9, 3,4-Dimethoxybenzaldehyde 121-32-4, 3-Ethoxy-4-hydroxybenzaldehyde 121-33-5, Vanillin 123-08-0, 4-Hydroxybenzaldehyde 134-96-3, 3,5-Dimethoxy-4-hydroxybenzaldehyde 139-85-5, 3,4-Dihydroxybenzaldehyde 141-43-5, Monoethanolamine, biological studies 148-53-8, 2-Hydroxy-3-methoxybenzaldehyde 458-36-6, 4-Hydroxy-3-methoxycinnamaldehyde 487-70-7, 2,4,6-Trihydroxybenzaldehyde 552-89-6, 2-Nitrobenzaldehyde 555-16-8, 4-Nitrobenzaldehyde, biological studies 605-59-4, 1-Ethyl-4-methylquinolinium iodide 606-55-3, 1-Ethyl-2-methylquinolinium iodide 613-45-6, 2,4-Dimethoxybenzaldehyde 619-66-9, 4-Carboxybenzaldehyde 621-59-0, Isovanillin 623-27-8, Benzene-1,4-dicarboxaldehyde 643-79-8, Phthalaldehyde 1194-98-5, 2,5-Dihydroxybenzaldehyde 1971-81-9, 4-Dimethylamino-1-naphthaldehyde 2144-08-3, 2,3,4-Trihydroxybenzaldehyde 2233-18-3, 3,5-Dimethyl-4-hydroxybenzaldehyde 5392-12-1, 2-Methoxy-1-naphthaldehyde 6203-18-5, 4-Dimethylaminocinnamaldehyde 7311-34-4, 3,5-Dimethoxybenzaldehyde 7770-45-8, 4-Hydroxy-1-naphthaldehyde 10031-82-0, 4-Ethoxybenzaldehyde 13677-79-7, 3,4,5-Trihydroxybenzaldehyde 13984-15-1, 1-Ethyl-2-methylquinolinium chloride

15971-29-6, 4-Methoxy-1-naphthaldehyde 17754-90-4, 4-Diethylamino-2-hydroxybenzaldehyde 18278-34-7, 4-Hydroxy-2-methoxybenzaldehyde 29865-90-5, 3,4-Dimethoxy-5-hydroxybenzaldehyde 84562-48-1, 4-Dimethylamino-2-methoxybenzaldehyde 87345-53-7, 3,5-Dimethoxy-4-hydroxycinnamaldehyde 90134-10-4, 4-Dibutylaminobenzaldehyde 95296-28-9, 1-Ethyl-4-methylquinolinium chloride 100980-82-3 106001-58-5, 4-Diethylamino-3-methoxybenzaldehyde 116209-27-9, 3-Methoxy-4-(1-pyrrolidinyl)benzaldehyde 187030-52-0, 5-[4-(Diethylamino)phenyl]-2,4-pentadienal

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dye compns. containing aromatic aldehydes and quinolinium derivative)

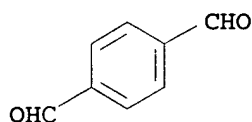
IT 623-27-8, Benzene-1,4-dicarboxaldehyde 643-79-8, Phthalaldehyde

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dye compns. containing aromatic aldehydes and quinolinium derivative)

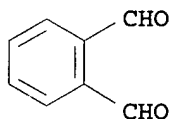
RN 623-27-8 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:93897 HCAPLUS

DN 134:168045

TI Hair dye compositions containing aromatic aldehydes or ketones

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19936912	A1	20010208	DE 1999-19936912	19990805
	WO 2001010398	A1	20010215	WO 2000-EP7164	20000726
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

EP 1200049 A1 20020502 EP 2000-956288 20000726  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY

PRAI DE 1999-19936912 A 19990805  
WO 2000-EP7164 W 20000726

OS MARPAT 134:168045

AB Hair dyeing compns. contain a combination of aromatic or heteroarom.  
aldehydes and/or ketones with and heterocyclic compds. and e.g., amino  
phenols, amines, aromatic nitriles. Thus, mixture of 1-methyl-4-[2-(4-  
formylphenyl)ethenyl]quinolinium Me sulfate and 2,5-diaminotoluene sulfate  
gave a brown-orange color to the hair.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)  
Section cross-reference(s): 27

ST hair dye arom aldehyde ketone

IT Phenols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(amino; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies  
Nitriles, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(aromatic; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(aryl, secondary; hair dye compns. containing aromatic aldehydes or ketones)

IT Hair preparations  
(dyes; hair dye compns. containing aromatic aldehydes or ketones)

IT Phenols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(phenolic; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(primary; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(secondary; hair dye compns. containing aromatic aldehydes or ketones)

IT 59-48-3, Oxindole 62-53-3D, Aniline, derivs. 65-49-6, 4-Aminosalicylic  
acid 67-52-7, Barbituric acid 77-32-7 81-11-8, 4,4'-Diaminostilbene-  
2,2'-disulfonic acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7,  
1,5-Dihydroxynaphthalene 87-02-5 87-66-1, Pyrogallol 88-21-1,  
2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1,  
2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol  
90-20-0 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5,  
o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5,  
2,5-Diaminotoluene 95-88-5 98-37-3, 3-Amino-4-hydroxybenzenesulfonic  
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol  
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid  
100-01-6, 4-Nitroaniline, biological studies 101-77-9,  
4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenylether  
102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine,



biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucin 116-63-2 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 139-65-1, 4,4'-Diaminodiphenylsulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-73-1 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 02-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3, 1-Ethylquinaldinium iodide 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 614-82-4, 2,4-Dihydroxyphenylacetic acid 615-50-9 615-66-7 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6 636-25-9, 2,5-Diaminophenol 876-87-9, 1-Methylquinaldinium iodide 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1123-93-9, 5-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2 2835-99-6 2871-01-4 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3342-78-7, 2-Aminophenylacetic acid 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5392-28-9 5418-63-3, 1,2,3,3-Tetramethyl-3H-indolium iodide 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5930-28-9 5959-52-4 6201-65-6 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0 6628-04-2, 4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1 7411-49-6 7575-35-1 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 1,3-Benzodioxol-5-amine 14338-36-4, 3-Aminophenylacetic acid 16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinolinium iodide 16867-03-1, 2-Amino-3-hydroxypyridine 19335-11-6, 5-Aminoindazole 20103-09-7 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2 28020-38-4 28491-52-3 29539-03-5, 5,6-Dihydroxyindoline 29705-39-3 41927-50-8 41946-53-6 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium

p-toluenesulfonate 50610-28-1 51387-92-9 53760-27-3 54381-16-7  
55302-96-0 56216-28-5 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium  
p-toluenesulfonate 61224-35-9 61693-42-3 62496-02-0,  
2-Methylamino-4,5,6-triaminopyrimidine 66566-48-1 66635-40-3,  
4,4'-Diaminostilbene dihydrochloride 70643-19-5, 2,4-  
Diaminophenoxyethanol 73264-13-8D, salts 74918-21-1 74991-01-8D,  
salts 75722-39-3D, salts 77523-60-5D, salts 79352-72-0 83732-72-3  
83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6,  
2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 85679-78-3 85926-99-4,  
4-Hydroxyindoline 90817-34-8 93841-24-8 104333-09-7 110102-86-8  
110952-48-2 114402-54-9 115423-86-4 117907-43-4 128729-30-6  
130582-56-8 135043-64-0 137290-86-9 159661-42-4,  
2,5-Dihydroxy-4-morpholinoaniline 169381-74-2 202525-71-1  
202525-73-3, 2,4,5-Triaminophenol trihydrochloride 202525-74-4,  
Pentaaminobenzene pentahydrochloride 202525-75-5, Hexaaminobenzene  
hexahydrochloride 202525-76-6 202525-78-8, 4,6-Diaminopyrogallol  
dihydrochloride 215377-52-9 324757-53-1D, salts 324757-55-3D, salts  
324757-56-4D, salts 324757-57-5D, salts 324757-58-6D, salts  
324757-59-7D, salts 324757-60-0D, salts 324757-63-3 324757-64-4  
324757-66-6

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(hair dye compns. containing aromatic aldehydes or ketones)

IT 89868-58-6P 89868-60-0P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); USES (Uses)

(hair dye compns. containing aromatic aldehydes or ketones)

IT 108-89-4,  $\gamma$ -Picoline 623-27-8, 1,4-Benzenedicarboxaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dye compns. containing aromatic aldehydes or ketones)

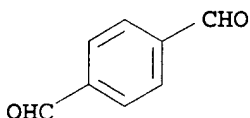
IT 623-27-8, 1,4-Benzenedicarboxaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dye compns. containing aromatic aldehydes or ketones)

RN 623-27-8 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



L83 ANSWER 17 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:628220 HCAPLUS

DN 133:224249

TI Nonoxidative hair dyes, their production and their use

IN Kripp, Thomas; Czigler, Thomas; Semadeni, Pascal Andre

PA Wella Aktiengesellschaft, Germany

SO PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000052100	A1	20000908	WO 2000-EP1024	20000209
	W: BR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				

PT, SE

PRAI DE 1999-19908654 A 19990227

- AB Nonoxidative coloring agents are obtained by reacting one or more carbonyl compds. with thiobarbituric acid or derivs. thereof. The dyes provide semipermanent shades on hair and have advantages over conventional direct or oxidative dyes such as low odor and reduced tendency to stain the skin. Thus, 5-[3-(4-(dimethylamino)phenyl)allylidene]-2-thioxodihydro-4,6-pyrimidinedione was obtained in 85% yield from thiobarbituric acid and 4-(dimethylamino)cinnamaldehyde; a blue shade was obtained on hair.
- IC ICM C09B023-02  
ICS C09B023-10; A61K007-13
- CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
Section cross-reference(s): 28, 62
- ST thioxopyrimidinedione hair dye prodn
- IT Hair preparations  
(dyes; nonoxidative hair dyes based on barbituric acid and carbonyl compds.)
- IT Aldehydes, reactions  
Ketones, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting materials; nonoxidative hair dyes based on barbituric acid and carbonyl compds.)
- IT 63811-40-5P 291543-84-5P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(black dye; production of nonoxidative hair dyes from barbituric acid and carbonyl compds.)
- IT 51325-80-5P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(blue dye; production of nonoxidative hair dyes from barbituric acid and carbonyl compds.)
- IT 62796-23-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dark blonde dye; nonoxidative hair dyes based on barbituric acid and carbonyl compds.)
- IT 27430-15-5P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(red dye; production of nonoxidative hair dyes from barbituric acid and carbonyl compds.)
- IT 291543-85-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(rose dye; nonoxidative hair dyes based on barbituric acid and carbonyl compds.)
- IT 1638-80-8P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(rose-red dye; production of nonoxidative hair dyes from barbituric acid and carbonyl compds.)
- IT 56-82-6, Glyceraldehyde 75-07-0, Acetaldehyde, reactions 91-56-5, Isatin 98-01-1, Furfural, reactions 100-10-7, p-(Dimethylamino)benzaldehyde 100-52-7, Benzaldehyde, reactions 102-52-3, 1,1,3,3-Tetramethoxypropane 104-55-2, Cinnamaldehyde 106-51-4, p-Benzoquinone, reactions 107-02-8, Acrolein, reactions 107-22-2, Glyoxal 111-30-8, Pentanedial 119-61-9, Benzophenone, reactions 121-32-4, Ethyl vanillin 121-33-5, Vanillin 123-54-6, Acetylacetone, reactions 148-53-8, o-Vanillin 431-03-8, Biacetyl 481-39-0, 5-Hydroxy-1,4-naphthoquinone 504-17-6, Thiobarbituric acid

542-78-9, Malonaldehyde 605-94-7, 2,3-Dimethoxy-5-methyl-1,4-benzoquinone 621-59-0, Isovanillin 623-27-8, Terephthalaldehyde 625-34-3, 3-Oxobutyraldehyde 638-37-9, Succinic dialdehyde 643-79-8, Phthalaldehyde 821-42-1, Glutaconic dialdehyde 821-42-1D, Glutaconic dialdehyde, monoenolates 1466-88-2, 2-Nitrocinnamaldehyde 1734-79-8, 4-Nitrocinnamaldehyde 2144-08-3, 2,3,4-Trihydroxybenzaldehyde 3249-28-3, Muconaldehyde 3675-14-7, Fumaric dialdehyde 6203-18-5 26895-04-5, Methylfurfural 31094-22-1 291768-37-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material; nonoxidative hair dyes based on barbituric acid and carbonyl compds.)

IT 27430-18-8P

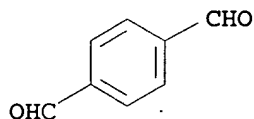
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(yellow dye; production of nonoxidative hair dyes from barbituric acid and carbonyl compds.)

IT 623-27-8, Terephthalaldehyde 643-79-8, Phthalaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material; nonoxidative hair dyes based on barbituric acid and carbonyl compds.)

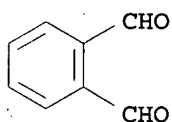
RN 623-27-8 HCAPLUS

CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



RN 643-79-8 HCAPLUS

CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:741188 HCAPLUS

DN 131:341749

TI Method for coloring fibers, especially human hair

IN Czigler, Thomas; Kripp, Thomas

PA Wella A.-G., Germany

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19820894	A1	19991111	DE 1998-19820894	19980509
PRAI DE 1998-19820894		19980509		

AB A 2-component nonoxidative hair dye contains (a) thiobarbituric acid or a

derivative thereof and (b) a carbonyl compound selected from saturated or unsatd. dialdehydes, diketones, or keto aldehydes, monoaldehydes or monoketones containing  $\geq 1$  chromophoric group, or quinones. These dyes provide a wide range of intense colors and shades which are resistant to washing and can be decolorized by oxidizing or reducing agents. They must therefore be applied after waving the hair. The components may be applied in either a 1-step or a 2-step procedure. Successive treatments with the dye may be applied to approach the desired shade without damaging the hair. In a 2-step procedure, 100 mL saturated (.apprx.0.72%) aqueous thiobarbituric acid solution was applied to the hair for 10-15 min at room temperature, followed (without rinsing) by 100 mL 1% citric acid solution containing 10 mmol malondialdehyde. After 10 min at room temperature, the hair was heated to 40-50° for 5-10 min and subsequently rinsed and shampooed. The dyed hair had a red color which did not fade on repeated washing.

IC ICM A61K007-13

ICS D06P003-04

ICA D06P003-14; D06P003-30; D06P003-60; D06P003-24

CC 62-3 (Essential Oils and Cosmetics)

ST hair dye thiobarbiturate carbonyl compd; aldehyde thiobarbiturate hair dye; ketone thiobarbiturate hair dye

IT Ketones, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(diketones; method for coloring fibers, especially human hair)

IT Hair preparations

(dyes; method for coloring fibers, especially human hair)

IT Chromophores

(method for coloring fibers, especially human hair)

IT Carbonyl compounds (organic), biological studies

Dialdehydes

Quinones

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(method for coloring fibers, especially human hair)

IT Aldehydes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxo; method for coloring fibers, especially human hair)

IT 56-82-6, Glyceraldehyde 75-07-0, Acetaldehyde, biological studies

91-56-5, Isatin 100-10-7, p-Dimethylaminobenzaldehyde 100-52-7,

Benzaldehyde, biological studies 100-52-7D, Benzaldehyde, derivs.,

biological studies 104-55-2, Cinnamaldehyde 104-55-2D, Cinnamaldehyde,

derivs. 106-51-4, p-Benzoquinone, biological studies 107-02-8,

2-Propenal, biological studies 107-22-2, Glyoxal 111-30-8,

Glutaraldehyde 119-61-9, Benzophenone, biological studies 121-32-4,

Ethylvanillin 121-33-5, Vanillin 123-54-6, Acetylacetone, biological

studies 148-53-8, o-Vanillin 431-03-8, Diacetyl 451-40-1 481-39-0,

5-Hydroxy-1,4-naphthoquinone 504-17-6, Thiobarbituric acid 504-17-6D,

Thiobarbituric acid, derivs. 542-78-9, Malonaldehyde 542-78-9D,

Malondialdehyde, diacetal 605-94-7, 2,3-Dimethoxy-5-methyl-1,4-

benzoquinone 621-59-0, Isovanillin 623-27-8,

Terephthaldialdehyde 625-34-3, 3-Oxobutyraldehyde 638-37-9, Butanedial

643-79-8, o-Phthalaldehyde 821-42-1, 2-Pentenedial 1466-88-2,

o-Nitrocinnamaldehyde 1734-79-8, p-Nitrocinnamaldehyde 2144-08-3,

2,3,4-Trihydroxybenzaldehyde 3249-28-3, Muconaldehyde 3675-14-7,

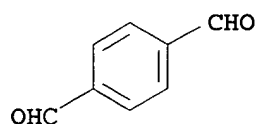
Fumaraldehyde 6203-18-5, p-Dimethylaminocinnamaldehyde 26895-04-5,

Methylfurfural 34218-23-0, 2,3-Dideoxyribose 60414-73-5 83073-86-3

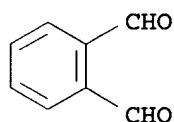
85006-05-9

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(method for coloring fibers, especially human hair)  
IT 623-27-8, Terephthaldialdehyde 643-79-8,  
o-Phthalaldehyde  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(method for coloring fibers, especially human hair)  
RN 623-27-8 HCAPLUS  
CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



RN 643-79-8 HCAPLUS  
CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



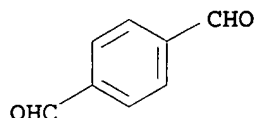
L83 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1975:583299 HCAPLUS  
DN 83:183299  
TI Means for promoting color change in bleached or untreated hair  
IN Kinney, James F.; Gadzala, Antoni E.  
PA Avon Products, Inc., USA  
SO U.S., 5 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3904357	A	19750909	US 1972-301785	19721030
	US 3871818	A	19750318	US 1973-350170	19730411
PRAI	US 1972-301785	A2	19721030		

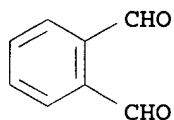
AB An aqueous hair dyeing composition containing 0.05-5% dialdehyde with an amine dye generates the desired color in a shorter time than without the dialdehyde. Thus, a lock of blond hair was treated with a solution containing 0.2 parts p-aminodiphenylamine [101-54-2] and 0.2 parts o-phthalaldehyde [643-79-8] in 100 parts solution. The solution remained on the hair 4 min and was then rinsed to give the hair a rich black color. A similar treatment with only p-aminodiphenylamine gave a pale brown color.

IC A61K  
INCL 008010200  
CC 62-3 (Essential Oils and Cosmetics)  
ST hair dye dialdehyde amine  
IT Hair  
(dyes for, amines and dialdehydes as)  
IT Dyes  
(polyamine, hair compns. containing dialdehydes and)  
IT 542-78-9 623-27-8 643-79-8

RL: BIOL (Biological study)  
(hair dye composition containing)  
IT 101-54-2 106-50-3, biological studies 123-30-8 5307-02-8  
RL: BIOL (Biological study)  
(hair dye composition containing dialdehydes and)  
IT 623-27-8 643-79-8  
RL: BIOL (Biological study)  
(hair dye composition containing)  
RN 623-27-8 HCAPLUS  
CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



RN 643-79-8 HCAPLUS  
CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



L83 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1975:552189 HCAPLUS

DN 83:152189

TI Promoting color change in human hair with a dialdehyde compound and a nitrogen containing compound

IN Kinney, James F.; Gadzala, Antoni E.

PA Avon Products, Inc., USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3871818	A	19750318	US 1973-350170	19730411
	US 3904357	A	19750909	US 1972-301785	19721030
PRAI	US 1972-301785	A2	19721030		

AB A solution containing a dialdehyde and an N-compound is used to dye human hair. Thus, a lock of blonde human hair immersed for 5 min. in a solution containing 0.1% o-phthalaldehyde [643-79-8] and 0.1% triethanolamine [102-71-6] showed after rinsing a dark brown color. The preferred dialdehydes are o- and p-phthalaldehyde [623-27-8]; preferred N-compds. are mono-, di-, and tri-alkanolamines, and NH<sub>4</sub>OH [1336-21-6].

IC A61K

INCL 008010200

CC 62-3 (Essential Oils and Cosmetics)

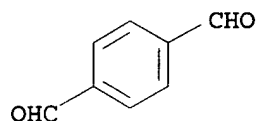
ST hair dye dialdehyde alkanolamine

IT Dyes

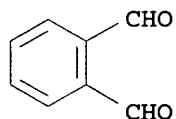
(alkanolamines-dialdehyde mixts., for hair)

IT Hair

(dyes for, dialdehydes and alkanolamines as)  
IT 542-78-9 623-27-8 643-79-8  
RL: BIOL (Biological study)  
(hair dyes containing alkanolamines and)  
IT 102-71-6, biological studies 111-42-2, biological studies 139-96-8  
141-43-5, biological studies 1336-21-6 7487-79-8 53404-39-0  
RL: BIOL (Biological study)  
(hair dyes containing dialdehydes and)  
IT 623-27-8 643-79-8  
RL: BIOL (Biological study)  
(hair dyes containing alkanolamines and)  
RN 623-27-8 HCAPLUS  
CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



RN 643-79-8 HCAPLUS  
CN 1,2-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



L83 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1972:15626 HCAPLUS  
DN 76:15626  
TI Crosslinking of wool keratin by bifunctional aldehydes  
AU Di Modica, G.; Marzona, M.  
CS Ist. Chim. Org. Ind., Univ. Torino, Turin, Italy  
SO Textile Research Journal (1971), 41(8), 701-5  
CODEN: TRJOA9; ISSN: 0040-5175  
DT Journal  
LA English  
AB The polypeptide chains of wool **keratin** were crosslinked by treatment with bifunctional aldehydes (i.e. glyoxal [107-22-2], terephthalaldehyde [623-27-8], and glutaraldehyde [111-30-8]), probably at the lysine and histidine basic groups. Treatment with the bifunctional aldehyde decreased the acid solubility and acid dye affinity of the wool, but increased the wool mech. properties. The solubility values were increased by treatment with monofunctional aldehydes. The equilibrium values for aldehyde takeup by the fiber were 0.6-0.7 mmole/g wool for bifunctional and 0.3-0.5 mmole/g for monofunctional aldehydes.  
CC 39 (Textiles)  
ST aldehyde crosslinking wool keratin; glyoxal crosslinking wool keratin; glutaraldehyde crosslinking wool keratin; terephthalaldehyde crosslinking wool keratin; acid dye affinity wool  
IT Keratins  
RL: USES (Uses)  
(crosslinking of wool, by bifunctional aldehydes)  
IT Crosslinking  
(of keratins from wool, by bifunctional aldehydes)



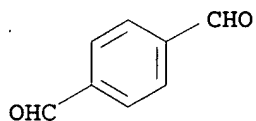
IT Aldehydes, uses and miscellaneous  
RL: USES (Uses)  
(wool fibers treated by, properties of)

IT 107-22-2 111-30-8 623-27-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(crosslinking by, of wool keratins, wool fiber properties in  
relation to)

IT 75-07-0, uses and miscellaneous 100-52-7, uses and miscellaneous  
110-62-3  
RL: USES (Uses)  
(wool fibers treated with, properties of)

IT 623-27-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(crosslinking by, of wool keratins, wool fiber properties in  
relation to)

RN 623-27-8 HCAPLUS  
CN 1,4-Benzenedicarboxaldehyde (9CI) (CA INDEX NAME)



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